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CITY OF LIVERPOOL

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Report of the Medical Officer of Health on the Post-War Re-Organisation of Hospitals and Public Health Services in Liverpool

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REPORT ON THE POST-WAR RE-ORGANISATION OF HOSPITALS AND PUBLIC HEALTH SERVICES IN LIVERPOOL.

(1) In accordance with a request made at a meeting of the Re-organisation Sub-Committee on the 29th March, 1944, the Medical Officer of Health presents a preliminary report on considerations affecting Hospitals and other Public Health Services in Liverpool during the post-war period. It may be desirable, in the first place, to describe briefly the present facilities for the diagnosis and treatment of cases of illness and for the prevention of disease since the system is a complicated one involving several of the Corporation Committees and many voluntary agencies and including services provided by the Government directly, such as, for example, National Health Insurance.

The following list gives the main sources from which are provided the facilities for the treatment of the sick and for the prevention of disease:—

(a) **The Government.** National Health Insurance, including the panel system; medical services connected with factories.

(b) **The Local Authorities.** Hospitals with Out-patient Departments, Institutions and Ambulances, District Medical Officers; Maternity and Child Welfare; Tuberculosis Dispensaries; Venereal Disease Clinics; The School Medical Service; the Port Health Service; services connected with Environmental Hygiene, including sanitation and housing and food inspection; vaccination, immunisation against diphtheria and general epidemiology.

(c) **Voluntary Agencies.** Hospitals; Maternity and Child Welfare, including the care of unmarried mothers and illegitimate children; social services which have an indirect but beneficial effect upon health; District Nursing Services.

(2) All these agencies, sometimes acting in co-operation, sometimes separately, provide a health service which, taken as a whole, is probably

as advanced and efficient as is the case anywhere in the world. The English Public Health Service has been criticised, perhaps justly, because it is unco-ordinated and is administered by far too many separate authorities. But it would be carrying criticism too far to decry the considerable merits of the system and to emphasise its defects without giving due weight to its undoubted advantages. The object of the White Paper on Medical Services is to improve the present system by removing some of its defects while retaining those parts of it which are of value, such as its freedom and flexibility.

Municipal Hospitals.

(3) The most important part of the Liverpool system, from the City Council's point of view, consists of the municipal hospitals and institutions which form a centrally administered unit comprising altogether about 10,500 beds dealing with all kinds of diseases—acute and chronic medicine and surgery, obstetrics and gynaecology, special diseases such as those affecting the ear, nose, throat and eye, tuberculosis, infectious diseases, venereal diseases, mental diseases and mental deficiency, skin diseases, and conditions related to old age and infirmity. In the system are three large general hospitals, comprising 3,500 beds, two children's hospitals with 1,650 beds, five fever hospitals (1,000 beds), two sanatoria (670 beds), and two institutions, one of which is partly a hospital, containing together 3,500 beds. This system of hospitals, under the control of the Hospitals Committee and administered by the Public Health Department, is the largest, except for that of the L.C.C., in England and Wales, and it is closely associated with the sub-departments concerned with tuberculosis, venereal diseases, and with the Maternity and Child Welfare and the School Medical Services. As special features, it may be noted that the Hospitals' Branch of the Department provides much maternity accommodation at the Walton, Broadgreen and Smithdown Road Hospitals (a total of 350 beds), has two children's hospitals at Alder Hey and Olive Mount and possesses a modern fever hospital

situated at Fazakerley, with also up-to-date sanatoria accommodation both at Fazakerley and at Heswall.

(4) Fazakerley Sanatoria and the various fever hospitals were built by the City Council under powers conferred by the Public Health Act, 1875; while the general hospitals, children's hospitals and institutions, and Cleaver Sanatorium were transferred to the Council in 1930 under the Local Government Act, 1929. All the transferred hospitals were administered from the year 1931 by the Public Health Department, and the Walton, Smithdown Road and Alder Hey Hospitals and the Mill Road Infirmary and Cleaver Sanatorium were, in the years immediately following the transfer from the Guardians, appropriated under the Public Health Acts.

During the period from 1930, when the hospitals were taken over by the City Council from the Guardians, to 1939, when the war broke out, vast improvements had taken place in the staffing and equipment of the transferred hospitals, and the majority had become efficient hospitals giving, in general, magnificent service to the community. Their original buildings remained, but out-patient departments, nurses homes, X-ray departments and laboratories had been built and the staffs had been strengthened by the appointment of additional consultants and specialists, laboratory, X-ray and other technicians, and by large numbers of nurses. At each of the transferred hospitals much re-adaptation of buildings had taken place so that premises, originally built for another purpose, had become reasonably suitable for the treatment of the sick. During the period under discussion new departments had been organised, such as those dealing with orthopaedics, and the laboratory services had been much improved.

As a result of all that was done in the period between 1930 and 1939 to improve buildings, equipment and staffing the capacity of the hospitals to deal with patients had greatly increased, and this is shown in the following table:—

COMPARATIVE STATEMENT OF ADMISSIONS, BIRTHS AND WORK UNDERTAKEN AT THE FOUR MUNICIPAL HOSPITALS DURING YEARS 1930 AND 1938.

	Walton.		Smithdown.		Mill Road.		Alder Hey.		Total.	
	1930	1938	1930	1938	1930	1938	1930	1938	1930	1938
Admissions ...	12,948	16,995	5,214	9,594	7,989	10,024	5,887	9,713	32,038	46,326
Births ...	1,334	2,848	758	1,670	766	1,603	—	—	2,858	6,121
Surgical operations ...	2,142	5,468	383	1,729	1,433	3,900	1,189	2,327	5,147	13,424
Out-patient attendances	14,579	66,850	No record	37,733	No record	85,501	9,336	33,001	—	223,085
Pathological" examinations	24,325	30,096	630	20,611	3,225	25,226	1,423	31,600	29,603	107,535
Post-mortems	340	1,067	No record	76	99	191	9	151	—	1,485
X-ray radiographs	3,768	22,328	1,235	8,079	4,588	14,708	4,308	13,327	13,899	58,442

Fever Hospitals and Sanatoria.

(5) The Corporation's sanatoria and fever hospitals had a different history. They were built by the City Council especially for the purposes for which they are used. Some of these hospitals, notably the Netherfield Road and Grafton Street Fever Hospitals, built by the City Council during the second half of last century, are not adequately designed for the modern treatment of infectious diseases since they have too little cubicle accommodation and the wards are too large and their situation, surrounded by buildings in the centre of areas of congested population, is by no means ideal. These two hospitals are, as isolation hospitals, approaching the end of their useful life.

The main Fazakerley Fever Hospital and the Sanatorium, on the other hand, are little more than 25 years old, are admirably designed and are situated on the outskirts of the city on an estate of approximately 200 acres. During the past few years additions have been made to the Fever Hospital of further nurses' accommodation and four cubicle blocks,

and at the Sanatorium there have been erected a treatment block and an X-ray unit, besides the ward and nurses' home extensions now in progress. These two important hospitals have many years of useful life in front of them and, although they may require to be increased in size after the war, they constitute Liverpool's main provision in connection with the treatment of infectious diseases and pulmonary tuberculosis.

On the Fazakerley site there are two smaller hospitals—the Annexe and Sparrow Hall. The Annexe is built in the form of large wards with scanty isolation accommodation, but it can still perform a useful purpose as " convalescent " accommodation for the main hospital. The Annexe buildings are, with two exceptions, built of wood and should be replaced by permanent structures. Sparrow Hall consists wholly of temporary buildings of the construction known as " high rib," erected during the last war for the reception of smallpox cases and, although it has a very few years of useful life before it, this hospital is obsolescent and should be closed down as soon as the situation in regard to tuberculosis accommodation will allow. The construction of the East Lancashire Road has made the situation entirely unsuitable for smallpox. At present, Sparrow Hall is being used as a sanatorium of about 150 beds, but it is hoped that the necessity for this use will relatively soon be over.

Cleaver Sanatorium.

(6) The Cleaver Sanatorium at Heswall is, with the exception of Seafield, the only Corporation Hospital situated outside the confines of the city. Before 1930 this hospital belonged to the West Derby Board of Guardians and it was transferred to the City Council under the Local Government Act, 1929. Prior to the war the Cleaver Sanatorium was mainly used for the accommodation of delicate children, but it is now a fully-organised sanatorium for adult cases of pulmonary tuberculosis—a function for which it is admirably fitted. Certain additions have been made, including nurses' accommodation and an X-ray unit and operating theatre.

One of the great advantages possessed by the Cleaver Sanatorium is its situation overlooking the River Dee; and this advantage—perhaps in

the main psychological but to some extent climatic—will be an attraction to a certain number of patients. On the whole, the Cleaver Sanatorium, with some further adaptation, seems too valuable a hospital to be used again for children requiring little medical treatment, and it would undoubtedly be wise policy to continue its use as a sanatorium for adult patients after the war. Accommodation for children now at the William and John Jones Home can be found, when the war is over, possibly by the use of Seafield House, which has been converted during the war into an auxiliary hospital, with operating theatre, etc.

The Public Health Services.

(7) Continuing his survey of the present services the Medical Officer now refers to the Public Health Services under the control of the Hospitals Committee. These services, controlled by the Hospitals Committee, are mainly those relating to Maternity and Child Welfare, Venereal Diseases, the dispensary provision for the care of tuberculosis, and the Port Medical Service. The School Medical Service, under the Education Committee, appears to have had its future definitely fixed by the new Education Act, and it will accordingly be unnecessary to refer to this Service further. The Port Medical Service, with its highly-specialized functions, is not mentioned in the White Paper, but it seems unlikely that it will be removed from its present administration.

Maternity and Child Welfare Service.

The Maternity and Child Welfare Service, as its title implies, consists of two branches of Public Health activity and, under the control of the Maternity and Child Welfare Sub-Committee, is administered by the Public Health Department. This service is, in Liverpool, closely co-ordinated on the maternity side with the maternity accommodation of the three municipal general hospitals and, as regards child welfare, with the Alder Hey and Olive Mount Children's Hospitals. Co-operation of this kind between the Maternity and Child Welfare Service and the appropriate hospitals is, in the Medical Officer's opinion, of the utmost value, and a reduction in the efficiency of this service would occur if this close working relationship were to be interrupted.

The maternity side of this Service concerns itself with the care of the mother during the ante-natal and post-natal periods and, employing 50 municipal midwives, is responsible for a large part of the domiciliary midwifery in the city. It is closely associated with the district homes of the Liverpool Maternity Hospital with which the Department works in friendly co-operation. Ante-natal and post-natal supervision is conducted through the agency of clinics held either in specially-built or adapted accommodation situated conveniently in various parts of the city and staffed by full-time or part-time medical practitioners, and by health visitors belonging to the Department. These " district " clinics work in conjunction with the ante-natal clinics of the three municipal general hospitals and many of their patients enter these hospitals for their confinements. The Liverpool Maternity Hospital employs a similar system but it possesses the advantage that it has at its disposal six district homes where midwives live and from which they work. It is desirable to consider whether to a limited extent a similar system should not be adopted on the municipal side.

(8) Child welfare is conducted on similar principles with clinics situated in appropriated parts of the city. Children suffering from serious conditions are admitted to the Alder Hey and Olive Mount Hospitals. An important function of the Child Welfare Service is the visiting of children up to five years of age and their homes by a staff of Health Visitors who advise in regard to their feeding and general care.

Health Visitors have many other duties; for example, in attending maternity and child welfare clinics and in giving advice and help on the various social problems referred to them. They work in close co-operation with the Municipal and Voluntary Hospitals and the various social and welfare organisations in the city.

Venereal Diseases.

(9) The Venereal Diseases Services in Liverpool is administered by a part-time V.D. Officer (who, however, devotes the larger part of his time to the work), assisted by a medical and technical staff, and patients are treated at three clinics situated at the Seamen's Dispensary, the Royal

Infirmary and the Out-patients' Department at the Mill Road Infirmary. These clinics provide a very full service, for men only at the Seamen's Dispensary, for women only at Mill Road, and for both men and women at the Royal Infirmary. Laboratory work in connection with the V.D. Scheme is performed at the City Bacteriological Laboratory (for the Seamen's Dispensary and Mill Road Clinics) and at the Pathological Department of the University (for the Royal Infirmary).

During the war, owing to the marked increase in the incidence of venereal diseases, both in the City and in the Port, the Venereal Diseases Clinics have been working at their maximum capacity. Speaking generally, it may be said that it is a better policy to organise a few well-equipped clinics of this kind, possessing accommodation for both men and women and open during a good many hours of the day including the evenings, than to have more clinics with fewer facilities. After the war, three V.D. Clinics, suitably situated, will provide ample accommodation for all the cases of this disease likely to occur in the city, and as the present buildings are of a satisfactory character, no radical changes seem to be required as far as the clinics are concerned. As, however, certain of the new kinds of treatment of the various forms of syphilis and of gonorrhoea render hospital accommodation desirable, in a proportion of cases it will be necessary to provide a limited number of beds for this purpose in any hospital development schemes. At present bed cases of these diseases are treated in wards at the Belmont Road Hospital where facilities are not ideal. There is, of course, no reason why persons suffering from venereal disease should not be treated in special wards in a general hospital. The amount of accommodation for this purpose required for the City is, however small, and the provision of 50 beds would seem to meet all requirements. The increasing use of penicillin in the intensive treatment of syphilis and gonorrhoea may possibly affect this figure.

(10) The foregoing paragraphs have been devoted to a general account of the Hospitals and Public Health Services under the control of the Hospitals Committee. As will be evident from the information contained in paragraph (1) these services, important as they are, do not

cover all the needs of the community in regard to the treatment of persons who suffer from any form of illness, mental or physical, and some of the services, such as hospitals and maternity and child welfare clinics, co-exist with similar facilities provided by voluntary bodies. Of these facilities by far the most important are the voluntary hospitals.

In Liverpool the voluntary hospitals form a complex and rather numerous group of hospitals providing altogether about 1,500 beds and, with one interesting and significant exception, they are administered by separate governing bodies which, as a rule, have little direct contact with each other, so that there is no common voluntary hospitals' policy. Indirect contact between the various voluntary hospitals is effected, to a limited extent, through the Associated Voluntary Hospitals Board. The exception, referred to above, is found in the case of the four voluntary general hospitals (Royal Infirmary, David Lewis Northern Hospital, the Royal Southern Hospital and the Stanley Hospital) which in 1936 joined together to obtain Parliamentary powers under the Royal Liverpool United Hospital Act to effect an administrative combination of these four hospitals. As far as the Medical Officer of Health is aware, the effect of this amalgamation is that the board of the United Hospital deals with finance and important matters of policy while the boards of the individual hospitals undertake the detailed routine administration of each unit. At present the Royal Liverpool United Hospital may be regarded as entering the preliminary stages of the development of a long-term policy which, it is hoped, will terminate in the building of a large teaching hospital comprising about 1,000 beds, situated near the University and serving as the main centre in this area for undergraduate and post-graduate teaching and for medical research.

(11) Besides the four voluntary general hospitals mentioned above, there are a number of special hospitals, usually of small size, which deal with a particular group of diseases or conditions; of these the most important are the Liverpool Maternity Hospital, the Women's Hospital in Catharine Street, the Radium Institute, the Royal Liverpool Children's Hospital, the Eye and Ear Infirmary and the St. Paul's Eye Hospital. The Liverpool Maternity Hospital is closely associated with the City's

Maternity and Child Welfare Service and receives grants from the Corporation. The Women's Hospital, dealing with gynaecological conditions, possesses a new and well-planned building. Under the operation of the Cancer Act, 1939, the Radium Institute has assumed a new importance since it is the main headquarters of the clinical side of the activities of the Liverpool Cancer Control Organisation and, besides new buildings which are to be added to when the war is over, this hospital possesses modern electrical equipment and controls the greater part of the City's supply of radium. The Royal Children's Hospital has a town branch in Myrtle Street and a country branch, containing 300 beds, at Heswall. This hospital possesses an up-to-date and well-attended out-patients' department; and it is now more closely associated with the Alder Hey Children's Hospital through the formation of a University Department of Child Health. St. Paul's Eye Hospital, situated before the war in a small building in Old Hall Street, is now accommodated, with the Northern Hospital, at St. Katharine's College, Childwall. The Chest Hospital, Mount Pleasant, dealt mainly with surgical conditions of the chest, but its hospital activities have been suspended during the war, although it is hoped to resume them at some future date. It is associated with the Delamere Sanatorium, which admits many Liverpool patients. Prior to the war the Central Tuberculosis Clinic was established in the hospital buildings and all the accommodation is now being used by the Tuberculosis Department as a temporary measure. When the war is over and the Chest Hospital resumes its normal activities new accommodation will be required by the Tuberculosis Department.

(12) Voluntary hospitals in Liverpool are, in the main, highly efficient and play an important part in the medical services of the city. The honorary medical staffs include most of the skilled and experienced consultants and specialists in Liverpool and the surrounding districts and the majority are clinical teachers at the University. A proportion of the consulting staffs at voluntary hospitals are also employed, on a sessional basis, at municipal hospitals. As things are at the present time it is practically impossible for a medical man to engage in private consulting practice or to be remunerated as a consultant or specialist unless he holds an " honorary " post at a voluntary hospital; and it follows as a

consequence that the number of these specially-skilled practitioners in all branches of medicine is strictly limited to the needs of the voluntary hospitals. A National Medical Service, requiring a much larger output of consultants and specialists, will be compelled to have regard to the methods of entry to this branch of the profession in order to ensure that the requisite number of consultants for the country as a whole are available.

The opinion has been expressed that the voluntary hospitals of Liverpool are efficient. While this statement is largely correct it is not entirely so. Some of the voluntary hospitals labour under the disadvantage that they are too small or that their buildings are out of date. (The latter disadvantage, although not the former one, applies also to some of the municipal hospitals.) The buildings at present or previously occupied by the four voluntary general hospitals are at the most generous estimate obsolescent and cannot be regarded as satisfactory according to modern standards. While good medical work can be performed in unsatisfactory buildings better work can be carried on in first-class buildings. Apart from the lay-out, the principal defect of these four buildings is lack of space, so that provision cannot be adequately made for the rapidly-expanding requirements of modern medicine; and this difficulty is enhanced by the fact that these hospitals are situated on cramped sites which afford no opportunities for the building of extensions.

The Boards of the four voluntary general hospitals are, of course, aware of these disadvantages and possess no way of overcoming them except by means of the proposal to build a new general hospital as soon after the war as may be possible, incorporating all four hospitals, which will then cease to exist as separate units. Until a new hospital is completed—and this may not be ready for occupation for at least ten years—these hospitals will have to accept the disadvantage of working in the buildings which they have owned for so many years, extemporising such improvements as may, on a short-term policy, be practicable and, in the latter part of the period, engaging in the interesting occupation of planning each its share in the new building.

Southern Hospital.

(13) At the close of the war the City Council is faced with the difficulty that the Southern Hospital will still be in occupation of the greater part of the accommodation at the Fazakerley Fever Hospital. This difficulty is increased owing to the fact that a wing of the Southern Hospital's building in Caryl Street has, in fact, been seriously damaged in an air raid. At present the greater part of the building is occupied by the Admiralty. The Medical Officer is aware that the Royal Southern Hospital is anxious to return to its old buildings in Caryl Street as soon as they are vacated by the Admiralty and have been put into a satisfactory state of repair; and representations have already been made to the Admiralty with a view to the termination of their tenancy as early as possible.

The David Lewis Northern Hospital, as the Committee will be aware, has been accommodated since 1939 in the buildings at Childwall belonging to St. Katharine's Training College. This hospital's orginal building in Leeds Street, is now being used as a naval hospital. No doubt the Leeds Street building will be vacated by the Navy as early as possible after the termination of the war, and the Northern Hospital will be in a position to return there. It is, of course, likely that St. Katharine's College will soon be urgently required for educational purposes, so that an early removal of the Northern Hospital (and of St. Paul's Eye Hospital) from Childwall will be necessary.

L.C.C.O.

(14) Some brief reference to activities directly associated with the City's main medical services may, perhaps, fitly conclude these paragraphs of the present report. The first of these, in order of importance, is the Liverpool Cancer Control Organisation, a body called into being for the purposes of the Cancer Act, 1939. The Organisation consists of representatives of the University, the City and the voluntary hospitals, and it has as its object the co-ordination of facilities for the diagnosis and treatment of cancer not only in Liverpool but in the surrounding areas. Other local authorities have been invited to take part in the Organisation and some have already joined or are engaged in preparing interim schemes under the Act preparatory to joining; and all such

authorities will receive assistance from the staff of the L.C.C.O. and may use for their patients Liverpool voluntary and municipal hospitals, on a basis of payment laid down by the Ministry of Health.

Joint Advisory Committee.

Another organisation of value to the municipal and voluntary hospitals is the Liverpool Hospitals Joint Advisory Committee, composed of representatives of the two hospitals' systems and of the University. The principal aim of the Joint Advisory Committee is to discuss and, as far as possible agree upon, matters of common policy as between the voluntary and municipal hospitals especially in relation to staffing and equipment, and it adequately fulfils the requirements now contained in Section 182 of the Public Health Act, 1936, in regard to consultation between those representing the two systems of hospitals.

RE-ORGANISATION OF HOSPITALS AND PUBLIC HEALTH SERVICES.

The White Paper.

(15) In considering this part of the subject, due weight must be given to the likelihood that great administrative changes may take place in the organisation of medical services in this country when the proposals contained in the White Paper, or some modification of them, are ultimately passed into law. Because of the uncertainty as to the form which the medical services will ultimately take, it is difficult, in dealing with the re-organisation of hospitals or clinics in Liverpool, to be always precise in indicating to the Committee what lines of progress are desirable in the future. If, for example, new hospitals are to be built their situation will be governed by the distribution of the population they are intended to serve, and this will depend upon whether the unit of administration is to be the City of Liverpool or, alternatively, a much wider area under the control of a joint board. Normally, because of the " user agreement," the City Council would, no doubt, in planning hospital accommodation for the future, have regard to the needs of the adjacent parts of the county included in the agreement; but if the area for which Liverpool municipal

hospitals are responsible extends much further than the present scope of the user agreement then hospitals of a larger size, or in a different situation may be necessary.

This example supplies a justification for the argument advanced in the White Paper that hospital planning must have regard to areas much more extensive than those of even the largest local authorities. To this point of view there will be, no doubt, general agreement. Liverpool, with its University and its very large system of hospitals, both municipal and voluntary, will obviously in the future as in the past attract the ablest men in the medical profession and will remain an important centre for the treatment of disease, and especially those types of diseases and conditions which require special skill or exceptional facilities for their diagnosis and treatment. That this fact is realised is clear from plans which are now being considered by one or more of the three parties concerned—the University, the voluntary hospitals and the City—for the organisation of a Neuro-Surgical Unit at the Royal Infirmary and a Department of Psychological Medicine at the University. A Maxillo-Facial Unit has been established at the Broadgreen Hospital as part of the Emergency Medical Service and this will, no doubt, be continued after the war is over; a Department of Child Health, under the charge of Professor N. B. Capon, has already been organised at the Alder Hey and Royal Liverpool Children's Hospitals; a large Tropical Diseases Unit containing altogether about 300 beds is in operation at the Smithdown Road and Grafton Street Hospitals with its headquarters at the former hospital; and a Thoracic Centre is in full operation at Broadgreen Hospital. A very large dermatological unit is in operation in Belmont Road Institution.

All these special units, and others which may be formed as a result of developments in medicine, are intended to serve a much wider area than the City of Liverpool, and administrative arrangements should be such that patients from other districts in Lancashire and Cheshire are encouraged to make use of them.

Liverpool will, therefore, continue to be the centre of the medical activities of a wide area. The University will train the medical student

and the voluntary hospitals and, it is hoped, the municipal hospitals however they are governed, will produce a sufficient quota of consultants and specialists to serve in districts remote from the City. Such consultants and specialists should associate themselves fully with the life of the districts in which they reside, returning from time to time to the parent city for refresher courses, and for contacts with the local leaders of the profession; in course of time returning perhaps to Liverpool on appointment to one of the more senior posts.

(16) It seems likely, although this is not decided, that the hospital planning area of which Liverpool is the centre will also include the county boroughs of Southport, Bootle, St. Helens, Wigan and Warrington and the county areas between them. This would form a unit for planning purposes comprising a population of about a million and a half. Such a unit would be self-contained for most hospital purposes, but areas outside, such as North Wales and Cheshire, will still for many years to come require to make use of Liverpool hospital accommodation for certain types of cases.

Apart from the post-war administrative structure of the Public Health and Hospitals' Services in this country, there is much to be considered which is independent of the method of government and organisation of these Services, and the following sections of this report are devoted to a discussion, with recommendations, as to the measures to be taken when the time is opportune to build up a really efficient medical service for the City. It is to be emphasised that post-war improvements and developments in the service must of necessity be planned on the basis of a long-term policy. Building priorities will for some years prevent any considerable new construction in connection with hospitals, since labour and materials will be required for the housing programme, and it seems therefore unlikely that any major improvements in hospital buildings can be undertaken for at least five years from the time of cessation of hostilities.

(17) If we survey generally the Liverpool hospitals from the point of view of the buildings themselves and the accommodation they contain,

the criticism is bound to be made that these buildings are mainly old, ill-designed for modern hospital purposes and, often, too small for the services they provide. Sometimes, as in the case of many of the municipal hospitals, buildings designed for one purpose are used for a completely different one. The Walton, Smithdown Road and Alder Hey Hospitals, for example, were mainly designed as institutions for the care of the indigent, aged and infirm. In the case of Alder Hey Hospital, however, the buildings are comparatively modern and have adapted themselves well for the purpose of a children's hospital. Buildings at the Walton Hospital—with the exception of recent additions—are all old and ill-suited for the purposes of hospital accommodation. This hospital, which is admirably situated to serve the north end of Liverpool and Bootle and district, can only be rendered satisfactory by a drastic scheme of demolition and re-building, and this is practicable as the site is a large one containing altogether approximately 35 acres. Some of the buildings at the **Smithdown Road Hospital** are more modern that those at Walton but some re-building is necessary, notably the substitution of better accommodation in place of the Maternity Unit and the portion of the building known as the "Old Corridor." This hospital, however, suffers from the disadvantage that it is cramped on the site and there is little vacant land available for new buildings. For this reason it may be necessary to demolish the existing maternity unit and the "Old Corridor" buildings and replace them by modern buildings of several storeys. The out-patient department is quite inadequate and additional Nurses' Home accommodation is needed. A new central stores should be built and either an extension of the kitchens or a new building in substitution is needed. The Medical Officer would accordingly suggest that the City Architect be called in at an early date to advise the Committee with regard to the general re-planning of the hospital. It is desirable that the tropical unit should continue as a permanent feature of the hospital in co-operation with the Tropical School, with, of course, a smaller number of beds.

Mill Road Infirmary.

(18) The Mill Road Infirmary, badly damaged in the air raids of 1940 and 1941, was an old building, seriously congested on the site and in a situation which made it impracticable to undertake additional much-

needed expansion. The only part of this hospital which was new was the out-patient department, built in 1938, and this building was fortunately left undamaged in 1941, when a considerable part of the main hospital building, including blocks C, E, F and G, and part of the cross corridor joining A and B blocks was destroyed or seriously damaged. Part of the nurses' home was also destroyed in an air raid in 1940. Apart from the out-patient department, the only buildings of this hospital which were not destroyed or seriously damaged in 1940 and 1941 are the main administrative quarters facing Mill Road and the fairly modern hospital blocks A, B and D, the two latter of which are situated next to the out-patients' department and can, therefore, be used in the future as an annexe to that department or as bed accommodation. It is now proposed to use blocks B and D, as a temporary measure, for maternity purposes.

The out-patient department is now being used for the purpose of clinic accommodation and as a dispensary to deal with cases sent by doctors from the immediate neighbourhood, not, primarily, from the point of view of the treatment of minor ailments but to sort out patients who may require admission to one of the city's hospitals. Another possibility would be that, having in view the central position of the site that the remaining buildings—other than F and G blocks—should be restored to use by the minimum of reconstruction and used for a rehabilitation centre. It is not, however, necessary for the Committee to decide now which of these alternative users they would prefer, and it would be wise to await the planning of the comprehensive medical service before taking a final decision.

Broadgreen Hospital.

(19) This hospital, prior to the war a sanatorium of 340 beds, formed part of the City's Emergency Medical Service accommodation, and it has been used since 1941 as a substitute for the Mill Road Infirmary. In 1941 a number of wards, built by the Ministry of Health for emergency purposes, became available and have added to the resources of the hospital nearly 360 beds, together with a rehabilitation unit, and it is hoped that a pair of operating theatres and an X-ray department will shortly be added.

Broadgreen, for its new purpose as a general hospital, has certain advantages but some defects. The situation is good and it is conveniently accessible by public transport; it is built on a large piece of land containing 40 acres, much of which is available for building purposes, and it possesses ward accommodation sufficient to take about 700 beds, thus rendering this hospital as large as the one it replaces. The possession of a number of beds does not make a hospital, and Broadgreen is deficient in certain essential services, especially laboratory accommodation, an out-patient and continuation department, operating theatres, nurses' homes and other facilities of a less important character. Nevertheless, and in spite of these deficiencies, some of which, especially the shortage of residential accommodation for nurses, will require early remedy, it seems inevitable that Broadgreen should continue to function as a general hospital for probably at least ten years after the war is over, as it is unlikely that any hospital built to replace Mill Road Infirmary can be ready for occupation in less than that time.

It is probable also that the accommodation for tuberculosis will have by that time been built up so as to be adequate for the needs of the city; it might therefore be thought that Broadgreen Hospital would then become redundant when the new hospital was constructed. A thoughtful estimation of the future hospital needs of the city, viewed partly as the medical metropolis of the North-Western Region, and partly in the light of the greater scope of modern medicine, points to a not improbable need for a greater number of general hospital beds for acute cases within or near the city. Further than this it seems probable that the increasing longevity of the population will produce a greater number of persons suffering from infirmities, associated with increasing age, who should receive whatever benefits a more active line of treatment, than is at present given, would afford, for which general hospital beds would be needed. Moreover, as stated later, it is thought that Walton Hospital, the largest of its kind in the country, exceeds by several hundred beds the desirable figure for a general hospital and that when reconstructed there should be a corresponding loss of beds which will require to be made up elsewhere. It must also be recognised that the building of new

maternity beds, supplying a demand that did not exist 15 years ago, whilst swelling the total number of beds in a hospital service, do not provide additional accommodation for the sick, but, on the contrary, the needs for maternity beds often tend to encroach upon those available for the sick. It seems probable therefore that another general hospital within or adjacent to the city at a point which would probably be selected by the area or regional planning bodies, proposed in the scheme for a Comprehensive Medical Service, will become an urgent necessity within the next 10-20 years.

(20) The Medical Officer has consulted with Dr. Findlay, Medical Superintendent of Broadgreen Hospital, since the first draft of this report, and it is felt that apart from the need for a new hospital for the city available in, say, 10 years' time, there will be increasing need for hospital accommodation of a modern character for which the vacant land at Broadgreen provides adequate space. Even after the overcrowding of some of the wards has been overcome by the cessation of service admissions, and the two wards occupied by nursing staff have been released by the building of a new nurses' home, there will remain a need for an additional 200-300 beds. Ample vacant space exists on which to build such wards, together with ancillary accommodation such as new operating theatres.

In favour of this immediate additional accommodation may be mentioned the consideration, referred to in relation to both Walton and Smithdown Road Hospitals, that before the reconstruction of those hospitals adumbrated in the appropriate paragraphs, there will almost inevitably be a not inconsiderable amount of demolition and that therefore the provision of some general hospital " decanting " accommodation appears to be a necessary preliminary to such reconstruction or parts of it. It is considered, therefore, that the use of Broadgreen may have to be continued even after new hospitals have been built.

ISOLATION HOSPITALS.

The Liverpool system of infectious diseases hospitals comprises the Fazakerley Hospital which includes the Annexe and Sparrow Hall, the

City Hospital North (Netherfield Road), City Hospital South (Grafton Street) and City Hospital East (Mill Lane) and the Port Hospital. This system of infectious diseases hospitals possesses, in total, 1,000 beds, and this, as regards the actual number of beds, is sufficient for the needs of the city and of such outlying areas as make use of Liverpool fever hospital accommodation. Although the quantity of this accommodation is sufficient for present and future needs (as far as the latter can be foreseen), the quality varies a good deal as between the various hospitals. Among factors tending to reduce the need for isolation accommodation are diphtheria inoculation and the falling birth rate.

Fazakerley Fever Hospital.

The main Fazakerley Hospital, excluding the Annexe and Sparrow Hall, consists of modern buildings to which were added, in 1937, 4 cubicle blocks containing 64 beds. Although the wards at Fazakerley Fever Hospital are modern and well-equipped, the hospital, taken as a whole, does not contain the number of cubicles required to comply with the latest ideas on the organisation of fever hospitals, which stress the importance of providing 50 per cent. of the total accommodation in the form of cubicle blocks and not open wards. Some conversion of a number of the larger wards into cubicles might be undertaken.

Sparrow Hall.

(21) Sparrow Hall Hospital contains 150 beds and is a temporary building erected during the last war. It is at present being used as a sanatorium in order to overcome war-time difficulties in regard to accommodation for tuberculosis; but the useful life of the buildings of which this hospital is composed is coming to an end and they should eventually be demolished as soon as sufficient tuberculosis accommodation is built to render their use for the present purpose unnecessary, or, alternatively used as workshops in connection with the rehabilitation of tuberculous patients for which its situation is suitable.

The Annexe, situated some way from the main hospital but in the same grounds, mainly consists of wooden buildings which the Council was in process of replacing by permanent structures before the outbreak

of war. Four wooden wards remain. Although used as an overflow from the main hospital, the Annexe, because of its isolated position, has been recognised for some years as the City's smallpox hospital, should a severe outbreak occur, and there is no reason why it should not continue to fulfil that function after the war is over.

Port Hospital.

The Port Hospital, New Ferry, consists of temporary buildings and, as its name implies, is used to accommodate cases of infectious disease coming into the Port. In practice only the severer types of case are admitted to the Port Hospital, milder types of infection going to the City's fever hospitals; but, nevertheless, this hospital fulfils a very important function since it is situated on the river and cases of smallpox or leprosy can be taken there direct from the ships. It does not appear necessary or desirable to alter this arrangement.

City Hospital North.

This hospital of 180 beds, situated in Netherfield Road, was built in 1866. It has only a limited amount of isolation accommodation and the main two-storey wards are large. The site on which the hospital is built is very restricted and the neighbourhood congested. There is little possibility that the Netherfield Road Hospital can be materially improved as there is no space on the site for any further building, and the Medical Officer recommends that this hospital be regarded as obsolescent. No doubt, as part of the re-planning of the City, good use can be made of this site of 3 acres.

City Hospital East.

(22) Like the other fever hospitals, the City Hospital East, Mill Lane, is well planned and situated in a much less congested part of the city than is the case of the City Hospital North. There is sufficient land available for structural additions, and the hospital, somewhat expanded in size, might continue to serve a useful purpose for cases of infectious disease from the south parts of the city. Like the other fever hospitals, the City Hospital East is short of cubicle-accommodation and accommodation for

nurses, but it is practicable to remedy these deficiencies partly by building and partly by conversion of large wards.

City Hospital South.

The City Hospital South, in Grafton Street, provides 100 beds and is, at present, being mainly used for the accommodation of cases of tropical diseases, in the Forces. This hospital suffers from the disadvantages associated with the Netherfield Road Hospital, namely, that the site is restricted and there is no cubicalised accommodation and little possibility of increasing the number of nurses' bedrooms. If this hospital continues to be used for tropical cases, as an annexe to Smithdown Road—and cases of these diseases may be numerous for some years after the war is over—there will be some justification for its retention as part of the fever hospital accommodation of the City. If, however, the hospital is not required for this purpose there would seem to be no adequate reason for keeping it in being in view of its small size and its position near to the docks. Small fever hospitals are relatively not as efficient as larger units, as they seldom possess the same standard of medical staffing and cannot take the same range of cases. It is to be noted that neither the City Hospital North or the City Hospital South can be given up until the Royal Southern Hospital releases the Fazakerley Isolation Hospital.

Fever Hospitals—Conclusion.

(23) To sum up this part of the Report relating to the City's Fever Hospitals—it appears desirable to possess, after the war, the same amount of accommodation as in 1939, but it should be improved in certain respects, notably by the provision of further cubicle accommodation and by discontinuing the use of the smaller hospitals—Netherfield Road, Sparrow Hall and Grafton Street—which, because of size, situation or obsolescence of buildings, are coming to the end of their useful life. If these three hospitals are closed down there will be a loss to the city of about 440 beds. These beds are not, however, very efficient accommodation, as they are nearly all in large wards, thus presenting problems

in regard to cross-infection which immobilize, at times, large numbers of them; and they could readily be replaced by providing 200 beds additionally at the Fazakerley and Mill Lane Hospitals, given the return of the beds at Fazakerley occupied by the Southern Hospital. Such accommodation, if it were of a modern type, containing a large proportion of cubicles and no wards larger than from 15-20 beds, would be more efficient, unit for unit, than the accommodation it replaced. Of the 200 beds suggested to replace the Netherfield Road, Sparrow Hall and Grafton Street Hospitals 150 could be built at Fazakerly and 50 at Mill Lane. It is to be noted that additional nurses' home accommodation at these two hospitals would be required, namely, for 45 extra nurses at Fazakerley and 15 at Mill Lane. The land requisite for these buildings is available at Fazakerley but architectural opinion should be sought as to the possibility of an additional ward block at Mill Lane.

It is highly unlikely that the incidence of infectious diseases in Liverpool and the surrounding districts will be materially less, in total, in the post-war period than it has been during the past few years, and there is a marked tendency for methods of treatment to be evolved which have the effect of lengthening the duration of stay in hospital or which necessitate admission to hospital in cases where, hitherto, home nursing is all that has been required. Effective immunisation of a large proportion of children under the age of 15, especially at the younger ages, will no doubt continue to reduce the incidence of diphtheria to a marked degree, but there is less possibility of similar preventive measures in connection with other infectious diseases, at least in the near future.

The planning of hospital provision in this area by a joint board may conceivably place additional burdens on Liverpool's infectious diseases and other hospitals and render the provision of accommodation as suggested in this paragraph too small for all requirements. Such action cannot, however, be foreseen and what is recommended here seems adequate to deal with infectious diseases arising from the population for which the Liverpool City Council is now responsible.

SANATORIA.

(24) Before the war, accommodation for tuberculosis was provided at three municipal sanatoria and two municipal hospitals, namely, Walton and Alder Hey, as well as the Liverpool Chest Hospital and its affiliated sanatorium at Delamere.

The number of beds available for tuberculosis in 1938 was as follows:—

TABLE I.

	Adults.	Children.	Total.
Fazakerley Sanatorium	267	—	267
Broadgreen Sanatorium	340	—	340
Cleaver Sanatorium	—	200	200
Walton Hospital	140	—	140
Alder Hey Hospital (non-pulmonary)	—	80	80
Chest Hospital...	20 (not all tuberculous)	—	20
Delamere Sanatorium	50	—	50
TOTALS ...	817	280	1,097

Cleaver Sanatorium was not completely occupied in later pre-war years.

At the present time the accommodation has been considerably reduced by the use of Broadgreen as a general hospital (loss 340 beds) and the partial destruction of the West Block at Fazakerley by enemy action (loss 40 beds). To some extent the Broadgreen Sanatorium has been replaced by Cleaver Sanatorium which has been built up to 220 beds for adults by the use of the rest-room and the school, whilst the children have been transferred, purely as a war-time measure, to the William and John Jones Convalescent Home at Rhyl (90 beds), which will doubtless be returned to its original use on the termination of hostilities. Temporary accommodation for tuberculosis has been provided in Sparrow Hall Hospital for 150 adults. The present accommodation is, therefore:—

TABLE II.

	Adults.	Children.	Total.
Fazakerley Sanatorium	233	—	233
A and B Wards, Fazakerley	80	—	80
Sparrow Hall Hospital	150	—	150
F2, Broadgreen Hospital	24	—	24
Cleaver Sanatorium	220	—	220
Walton Hospital	140	—	140
Wm. and John Jones Home	—	90	90
Alder Hey Hospital (non-pulmonary)	—	80	80
Delamere Sanatorium	40	—	40
TOTALS ...	889	170	1,059

The net loss of beds is, therefore 38.

The loss of beds was not the sole effect of the war. There was a certain downgrading process in the major sanatoria. Thus at Fazakerley Sanatorium the new treatment block is in the occupation of the Royal Southern Hospital and the recreation rooms have ceased to be so used, the women's recreation rooms having been converted to a surgical and radiographic unit. At Cleaver Sanatorium the rest-room and schools are occupied as wards.

To meet the shortage of beds the Committee is engaged in building two ward blocks at Fazakerley with 48 beds and with a dining and two recreation rooms. The Committee will also probably wish to replace the destroyed portion of the West Block by a permanent building (say, 40 beds), as soon as Government permission can be obtained.

In considering the future sanatorium needs of the City there are several factors which must be investigated. Unlike other diseases where effective treatment may considerably shorten the average length of stay in hospital the reverse is true of tuberculosis unless they become diagnosed at an earlier stage in the disease than is commonly the case.

In tuberculosis, improved methods such as the use of artificial pneumothorax and thoracic surgery offers prospects of amelioration or cure to many patients whose disease was formerly progressive. Further, many patients reach a stage where the disease is arrested but may relapse under competitive work outside the sanatorium but whose health may be maintained under non-competitive colony conditions. The average length of stay in sanatorium, formerly three or four months, is now well over a year.

The use of mass radiography with its early detection of cases of tuberculosis, cases whose chance of ultimate recovery will be greatly improved, will nevertheless produce as an immediate result an increase in the number of cases requiring treatment. The introduction of allowances under Memo. 266/T. has tended to increase the number of cases in sanatorium and this will continue if this policy is continued or extended.

On the other hand, it is probable that the shortage of houses, and the absence of relatives in the services or elsewhere, has unduly raised the patients seeking treatment in sanatorium who otherwise might have preferred to remain at home. There has been a rise in the incidence of tuberculosis during the war which, though not large, will after the war is over leave a residue of cases requiring treatment.

It is difficult to assess exactly the weight of the influences just described in the post-war period. It is fairly certain that it will be necessary to find alternative accommodation for the children at present in Rhyl. To meet this need it would be well to consider the use of Seafield House at Seaforth for this purpose. It has been converted into a naval hospital but will presumably revert to the City; it is not thought that the Committee will wish to use it once more for mental defectives for whose care the Lancashire Mental Hospitals Board is at present responsible. Whatever accommodation is provided must allow for school and restrooms and for isolation cubicles.

It will be noticed that the number of beds in Cleaver Sanatorium was 200 before the war. These beds had not been fully occupied, and 100-110

was the usual occupation, and this number of beds should suffice for the future.

(25) The position in relation to adult sanatorium beds is closely bound up with the future developments of general hospitals, especially Broadgreen and Walton. If a new municipal general hospital is to be built to replace Broadgreen, but on another site, this may take a number of years to construct. Eventually some part of Broadgreen Hospital, say the hutted extension of 300 beds, would become available for the reception of cases of tuberculosis, particularly those housed in Walton in the " Pavilion " which, as mentioned elsewhere, will probably be included in the first section to be evacuated in connection with a large scheme of reconstruction of Walton Hospital, if such is approved. The present accommodation in Broadgreen for tuberculous patients is one ward for male patients in the Thoracic Surgery Unit. A second ward for female patients may be provided later.

It is desirable that accommodation for the more chronic types of tuberculosis should be available in a hospital and not in a sanatorium. Certain types of tuberculosis, such as cases occurring in elderly patients in whom it is complicated by the occurrence of bronchitis, do not do well under rigorous sanatorium open-air treatment, and this type of case has been effectively treated at Walton Hospital although the amenities of the surroundings there are not good.

The future of Sparrow Hall as an Annexe to Fazakerley Sanatorium requires consideration as its use for this purpose has been regarded as a temporary expedient. There are two alternative possibilities (a) The use of isolation wards in City Hospital, Fazakerley, now in occupation by the Royal Southern Hospital, for sanatorium purposes when these revert to the Corporation, (b) the building of a new municipal general hospital to replace Broadgreen and the taking over of wards at Broadgreen for sanatorium purposes as and when these become vacated.

(26) Any considerable policy of building sanatorium wards is to be deprecated in view of these considerations: (1) That tuberculosis was a declining disease before the war and that in the post-war period this

decline will presumably be resumed—possibly accelerated; (2) any increased user of beds due to mass radiography will presumably be only very temporary and should lead to the further decline of the disease; (3) the war-time need arising from housing difficulties should be overcome *pari passu* with the housing programme.

It may be assumed that the period of stay in sanatorium, etc., will continue to lengthen. Little has, in the past, been done for the rehabilitation of the post-sanatorium case. A proportion of such cases can best be transferred to special centres such as Papworth or Barrowmore. For a larger portion accommodation for training and occupation in work of a non-competitive basis should be provided, preferably at Fazakerley, possibly eventually at Broadgreen. The large wards at Sparrow Hall might lend themselves to this end, at any rate for a time.

Thoracic surgery has a considerable future before it both for tuberculous and non-tuberculous patients. In this respect Liverpool will undoubtedly be the clinical centre for a considerable area. The amount of thoracic surgery at Fazakerley has increased and the blocks now under construction will greatly extend the opportunities for this work, and it should become one of the two principal centres for the major thoracic surgery in the Liverpool region.

(27) It is recommended that new construction should be limited, until the future is clearer, to:—

(a) The two new wards at Fazakerley, together with day rooms, etc., now under construction.

(b) The replacement of the destroyed section of the West Block at Fazakerley—say, 40 beds—in wards of 6, 8 or 10, as there are sufficient single cubicles and large wards in actual use or under construction.

(c) The construction of a wing at Cleaver Sanatorium of, say, 50 additional beds in single cubicles and in units of 6, 8 or 10 beds of which there is a shortage there. An extension of the existing nurses' home by building a new top floor will also be needed.

The re-organisation of the administrative block in the centre of the sanatorium shall also be carried out by the building of a third storey and a lift if that is practicable. The " rest room " now occupied by bed patients should revert to its original purpose of a recreation room. Certain other lesser buildings may require alteration.

The position when this work was completed would then be:—

TABLE III.

	Adults.	Children.	Total.	
Fazakerley Sanatorium	325	—	325	Total 555
FazakerleyWards, A and B	80	—	80	
Fazakerley Sanatorium Annexe	150	—	150	
Cleaver Sanatorium	270	—	270	
Seafield House	—	110	110	
Walton	140	—	140	
Alder Hey (non-pulmonary)	—	80	80	
Delamere	40	—	40	
Chest Hospital	20	—	20	
TOTAL	1,025	190	1,215	

As previously mentioned, the premises at Seafield House have been converted for hospital purposes and should be taken into consideration as a possible unit for children. The final objective in regard to tuberculosis should be that, as with fever cases, there should be beds waiting for patients and not vice-versa.

Thoracic Surgery.

As part of the Tuberculosis Service for the city there are operative facilities at the Fazakerley Sanatorium and at Broadgreen Hospital. The Thoracic Centre at Broadgreen deals with other conditions than tuberculosis and it takes cases (all non-tuberculous) from Lancashire and Cheshire. It is recommended that after the war this unit should be kept

in being in order to provide specialised facilities for operations in the chest in connection with such conditions as carcinoma and bronchiectasis, and that the centre at the Fazakerley Sanatorium should be used for the more restricted purpose of dealing with the operative treatment of pulmonary tuberculosis. There will also be available, in addition to these two centres, a unit at the Chest Hospital where thoracic surgery will be undertaken.

All these facilities will suffice not only for Liverpool but also for an extensive area beyond the city, including parts of Lancashire and Cheshire and the whole of North Wales.

Dispensaries.

(28) As this part of the Report is dealing with arrangements for the treatment of tuberculosis in institutions it may be well to complete it by referring to clinic and other services associated with this disease. This is all the more desirable as hospital and clinic services in respect of the diagnosis, treatment and after-care of tuberculosis are very closely linked administratively.

Prior to the war, there were three Tuberculosis Dispensaries—the North, South and Central Tuberculosis Clinics, situated at 332, Netherfield Road North, 365, Park Road, Dingle, and the Chest Hospital, Mount Pleasant. The two former were sited in old-fashioned residential property and the last-named accommodated in a section of the Chest Hospital which was specially designed for the purpose when this hospital was building an extension in 1933. On the outbreak of hostilities the South Tuberculosis Clinic moved into temporary quarters in the Chest Hospital, and the house in Park Road has since been used temporarily as a Scabies Clinic. When normal conditions prevail, the South Tuberculosis Clinic will probably return to this building, pending the acquisition of more suitable premises.

Three tuberculosis clinics have been sufficient in the past to meet the needs of the city, but the industrial expansion now taking place, especially in the Speke area, may make a recasting of the clinic boundaries neces-

sary. An additional clinic in this area may also be required, together with increased medical staff.

New Buildings.

The main criticism which could with some justification be levied at the dispensary service as it existed before the war was that it was housed in inadequate buildings of the converted house type. For first-class work in an expanded service much better accommodation is essential; and it is recommended that, as part of the post-war programme of development, specially-built accommodation for the Tuberculosis Service should be provided. This should consist of new North and South Dispensaries, possibly forming part of Health Centres or the joint Maternity and Child Welfare and School Medical Centres; and a central administrative building to provide office accommodation, a main dispensary, and a department for mass radiography. It is likely that temporary accommodation for the central office, enlarged during the last twelve months by the addition of a welfare department and facilities for mass radiography, will be required at the end of the war, as the Chest Hospital will then desire to resume its normal activities. But, in the Medical Officer's opinion, a specially-designed and built central office should be the ultimate aim.

The treatment of pulmonary tuberculosis by collapse therapy (artificial pneumothorax) is steadily gaining in favour and this greatly increases the work entailed in " refills." This minor operative measure is at present carried out at the sanatoria, but as the duration of the period during which " refills " are maintained is tending to increase to three or even five years an obviously increasing load will be thrown on the out-patients' departments of the sanatoria in the future. If the proposed new clinics were provided with X-ray facilities to permit of proper control of collapse this operation could be performed by the tuberculosis officers at the clinics, thus adding to the interest of their work, relieving the sanatoria and obviating the necessity of patients making long journeys as at present. An alternative to this would be to centralize this work at the Central Tuberculosis Clinic where each tuberculosis officer could attend, by roster, to deal with his own cases. This might avoid the necessity for X-ray units at each of the clinics.

After-care.

(29) After-care arrangements, of a formal kind, have seldom been a prominent feature of tuberculosis schemes in this country, but two recent developments, namely, the rehabilitation proposals contained in the Tomlinson Report and the system of treatment allowances laid down in Memo. 266/T, have again focused attention on the care of the tuberculous patient during the critical period after he is discharged from the sanatorium. The scheme of allowances laid down in Memo. 266/T is strictly a war-time measure applying only to pulmonary tuberculosis and to those patients whose condition can be materially improved by treatment, but it seems likely that allowances during treatment will be made available, after the war, to **all** persons with dependents suffering from this disease during any period of necessary treatment, possibly as part of the country's Social Security proposals. If this should be so, the principal barrier to early and, if necessary, prolonged treatment, will be removed. In this way it becomes possible to embark upon schemes of rehabilitation since the economic need to return to work is no longer urgent.

Rehabilitation.

It is to be observed, in connection with rehabilitation (a method not limited to tuberculosis but of wide application) that the final restoration to physical fitness and working capacity of a person suffering from tuberculosis depends, *inter alia*, on the stage in the disease which the patient has reached when he is diagnosed and brought under treatment. But however soon the diagnosis is made and however efficient the treatment, there will be, in almost all cases, some impairment of working capacity which will be lifelong. The Tomlinson Report, therefore, makes the desirable suggestion that this fact of permanent impairment of working capacity should be recognised by the payment by the State of allowances sufficient to maintain a satisfactory standard of living if the patient is compelled by reason of his disability to accept shorter working hours or less strenuous conditions of employment. One method of after-care, to be undertaken by local authorities, will be to obtain for ex-sanatorium patients whose condition is such that they are fit for some work, employment suited to their needs and capacities.

As to methods of rehabilitation, it may suffice to say that they involve the provision of gymnasia, facilities for games and recreation and opportunities for light work. This provision will be required at each sanatorium and persons skilled in physiotherapy will have to be employed.

THE GENERAL HOSPITALS.

(30) Some general observations have already been made (paras. 17 and 18) on the present state of the main municipal hospitals, namely, Walton, Broadgreen and Smithdown Road. It is proposed here to deal in greater detail with the future provision of general hospitals accommodation for the city and the "user agreement" area, dealing with this important subject from the points of view of buildings and staffing. Granted efficient buildings and a much higher standard of medical—and, to some extent, nursing—staffing than at present exists it would seem probable that the actual **number** of general hospital beds is sufficient, or nearly sufficient, under existing conditions for the needs of the population now served. There are, however, factors operating in both directions, both to increase and to diminish the occupation of beds in hospitals, and it remains to be seen in the future which factors will predominate.

The municipal general hospitals serve the City of Liverpool, the County Borough of Bootle and a small part of the County of Lancashire, while the voluntary hospitals of the city take patients from a much wider area embracing, besides Liverpool and Bootle, much of Lancashire, about half of Cheshire and the whole of North Wales. Liverpool, as a University City and an important medical centre, has, therefore, hospital responsibilities extending far beyond its boundaries, and it is unlikely that these responsibilities will become less with the advent of a National Medical Service.

A National Medical Service may affect the way in which hospitals are administered, but the number of beds required for the city and the standard of staffing necessary for the attainment of a high degree of efficiency do not depend upon the kind of administrative machinery

adopted but upon absolute needs which can be stated now with a considerable degree of accuracy. As a basis for discussion it may be assumed that the number of general hospital beds required during the ten years folowing the cessation of hostilities will be not less than and may somewhat exceed the numbers provided at present, namely, 4,700. A round figure of 5,000 is suggested. This figure includes both voluntary and municipal general hospitals. One important assumption, however, must be made in accepting this figure—that the standard of staffing and, as far as may be practicable, of buildings, is much improved. An increase in the standard of the medical staffing of municipal hospitals has been urgently required for a considerable time and some excellent progress was made in this direction in the years immediately preceding the war. But accelerated progress is desirable and some proposals to this end will be made later in this Report.

New Voluntary Hospital.

(31) It has already been pointed out that the buildings of all the general hospitals in the city are out of date and in the main no longer suitable for modern hospital purposes. This applies alike to the municipal and voluntary general hospitals. In some respects Liverpool has, in the past, been unfortunate in regard to its hospitals policy, especially on the voluntary side, and it is the only large city in this country which does not possess a modern voluntary hospital of considerable size. Instead, it possesses four voluntary general hospitals the largest of which has little more than 300 beds and the smallest only 100. That the policy of building many small hospitals has been a wrong one is now generally admitted, and certain steps had been taken before 1939, notably by the formation of the Royal Liverpool United Hospital Board, for the purpose of revising this policy. The Royal Liverpool United Hospital Board had, before the war, announced its intention of building a new hospital of about 1,000 beds to replace the four voluntary general hospitals. This—it is proposed—will be a teaching hospital, closely associated with the University, and it is hoped to complete it during the next ten years. It will no doubt co-operate with and influence the municipal hospitals and other voluntary hospitals, both inside and outside Liverpool, and it will be a centre for research.

(32) The building problem of the municipal hospitals' system, possessing very many beds for the purpose of discharging the Council's legal obligations, is much larger and more complex. The principal problem may be stated briefly—to build a new general hospital of about 1,000 beds to replace the Mill Road Infirmary and to re-construct the Walton Hospital and a portion of Smithdown Road Hospital on their present sites. Before the war the total bed accommodation of the two former general hospitals was 2,500, of which 700 beds were available at Mill Road and 1,800 at Walton. The number of beds at Walton Hospital is, perhaps, unduly large, and it would be preferable to reduce this number, during reconstruction, to about 1,500 beds, replacing Mill Road Infirmary by a moderate-sized hospital of 1,000 beds.

Reconstruction of Walton Hospital.

It is to be noted that the reconstruction of the Walton Hospital would have to proceed over a period while the hospital was working at, more or less, full capacity since it would be impracticable to withdraw this number of beds from service for two or three years while re-building was taking place. An adequate amount of available land within the curtilage of the Walton Hospital renders this solution of the problem possible. As new blocks were built on vacant land, equipped and brought into use, the old buildings would one after the other be demolished and replaced by new construction according to a plan, which would take account of the need for continuing the work of the hospital with as little interruption as possible. It might be possible to clear a considerable area of ground by the demolition of the five blocks and the " pavilion " occupied by about 140 tuberculous beds and 175 chronic and infants' beds. This land, together with the field in front of it, would provide for a considerable hospital section.

Opinions vary as to the ideal planning of a modern general hospital. More often than not the layout of the hospital will depend upon limiting circumstances such as the amount of land available. If the hospital must, perforce, be erected on a small site of less than ten acres, as may happen if it is to situated in a congested urban area, the buildings must be of many storeys in height. Fortunately, such a limitation is not imposed

upon the architect in connection with the re-building of the Walton Hospital, but he is faced with the disadvantage that he is replacing an existing series of buildings and must conform, to some extent, to their lay-out. It seems necessary, therefore, that the new hospital should be planned in a series of blocks connected together by a central corridor. This is, of course, an entirely satisfactory method of hospital planning and, because of the relative abundance of land, it will not be necessary to build each block above four or five storeys in height. Some of the separate but inter-connected blocks will be devoted to special subjects such as obstetrics, neurology, etc., and they should be planned beforehand with that object in view. A proportion of the accommodation should be used for chronic diseases in view of the Council's responsibility for all types of disease and taking into account the likelihood that the incidence of chronic conditions will increase with an expected steep rise in the average age of the population.

(32a) The most urgent needs in the way of new buildings at Walton are a new maternity block and an admission and out-patient department, both of which are entirely inadequate and unsuitable for a hospital which is the largest of its kind in England. Both schemes had been discussed before the war and plans had been prepared, and in the case of the out-patient department, approved. But the siting and planning of these two units must now be considered in relation to the lay-out of the rebuilt hospital of which they would form an integral part.

The maternity unit, probably the largest in the country, is the birth-place of some 2,800 babies per year. Under the user agreement it serves an area not only of the city but also the County Borough of Bootle and other areas in the county to the north of Liverpool. This immense work is carried out in two special buildings and certain sections of the main buildings of the hospital. The so-called maternity building is very cramped and serves mainly as an ante-natal clinic. The main part of the unit is in a one-storey building built as an annexe to house old women. It has many disadvantages, the labour provision is elementary in type and the facilities for isolation quite inadequate. The premature babies' unit is housed in one of the ' blocks." During the war this unit has functioned

under circumstances of great difficulty. An entirely new unit for 150-200 mothers should be built, as soon as post-war priorities will allow, with adequate labour, operative and isolation facilities.

The out-patient and admission facilities are equally inadequate and would have been replaced but for the outbreak of war. The new unit should be built with a view to a considerable increased user which experience has shown to follow increased facilities.

Additional accommodation for medical officers, both married and unmarried, will be needed at once and an extension of laboratory facilities.

(33) An important question for the Committee to decide is as to whether the whole of the Walton Hospital buildings should be demolished to make way for the new hospital or whether, as an alternative, some should remain to be used for another purpose. The Medical Officer raises this question because of the condition of the fabric of the Kirkdale Homes. These buildings are obsolescent, most of the wards are far too large for modern requirements, and in several parts of this institution the fire risk, because of methods of construction and difficulties of access, is considerable. Parts of Walton Hospital, which was originally built as an institution, are considerably better as accommodation for old people than the wards at Kirkdale Homes, although they are by no means ideal for this purpose.

Kirkdale Homes.

It seems a matter for consideration whether it would not be desirable, for a temporary period, to use some accommodation in the present Walton Hospital buildings for old people and discontinue the use of the Kirkdale Homes entirely as an institution. Such an arrangement would involve for a period of some years the presence on the same site of a first-class general hospital dealing with a wide range of diseases and an institution providing accommodation for old people; and it would be essential, in the Medical Officer's opinion, that the two administrations, while co-operating to any necessary extent, should be kept in separate hands.

It has been emphasised above that any user of a part of the Walton Hospital for the accommodation of old people should be for a temporary period only. This recommendation is made in the light of the possibility that special accommodation of a modern type might be designed for the housing of old people which would give them a more homelike atmosphere while providing, as does the present institutional system, adequate care and supervision suited to their varying needs. The Medical Officer proposes to refer to this subject later in the Report, when dealing with the Committee's institutions.

Smithdown Road Hospital.

References have already been made in paragraph 17 relative to suggested improvements at Smithdown Road Hospital.

Hospital to Replace Mill Road.

(34) The problem of building a 1,000-bedded general hospital to replace the Mill Road Infirmary is complicated by the fact that no entirely suitable site is yet available. A site of 25 acres is required and this can, no doubt, be found near the centre of the City, as part of the re-planning proposals, or, alternatively, much closer to the periphery where land is cheaper and can be rendered available without extensive demolitions. As a matter of choice the Medical Officer thinks that a site well away from the centre of the City would be preferable partly because of its superior amenities and partly because the new voluntary hospital, also of 1,000 beds, will be situated centrally near the University, and this will provide for the urgent needs of the population living in the inner belt.

The only site actually in the possession of the Committee is that at Olive Mount. In order to secure a satisfactory site for this hospital it is recommended that the City Engineer and Surveyor be asked to make suggestions to the Committee in regard to this matter. It should be remembered, as already stated in paragraph 19, that by the time building of a new hospital becomes possible the proposals for a Comprehensive Medical Service in one form or another will have been brought into operation and that it will only be possible to erect a hospital after consultation

with all the area interests involved and as part of an integrated hospital service for an area considerably larger than Liverpool.

The new hospital, wherever situated, should, it is suggested, be planned on the " block " system, with inter-communicating corridors, and to a large extent, each block should be self-contained in regard to the subject it deals with or the condition it treats. In particular there should be accommodation at this hospital for medicine, surgery, obstetrics and gynaecology, orthopaedics and for special diseases such as those of the ear, nose and throat, and of the skin, children's diseases, venereal diseases, infectious diseases, conditions belonging to psychological medicine, and chronic diseases. Contained in this list are several conditions for which only a small amount of accommodation will be required, the great preponderance of beds being allocated to general medicine and surgery, maternity and orthopaedics. Included in this unit dealing with orthopaedics will be arrangements for rehabilitation which, however, will apply to other conditions also.

Certain important matters of policy arise out of a detailed consideration of the list of conditions for which provision should be made in the new hospital, and the Medical Officer has the advantage of receiving the opinion of the Medical Superintendents on many of these questions.

Children's Diseases.

It is agreed that, in any re-organisation of hospital services in Liverpool due weight must be given to the present structure. This is important, especially in connection with the question of whether any provision for children's diseases should be made at the new hospital, bearing in mind the fact that the Committee have a first-class children's hospital at Alder Hey with high traditions and a great reputation. It is undesirable that any change should be made which would have the effect of discontinuing the use of Alder Hey as a children's hospital in the future; and this consideration, if the Committee agree to it, limits the amount of accommodation required at the new hospital in respect of children's diseases to a unit, attached to the maternity block, dealing with diseases and conditions of the newly-born. There is little doubt that the paediatric service

associated with general hospitals which take maternity cases should be strengthened as this is the most helpful line of approach towards a reduction in the neo-natal mortality rate (deaths of children under 1 year of age).

Fevers.

(35) Some limited amount of accommodation should also be provided at the new hospital for certain types of infectious diseases such as puerperal fever, tuberculosis, etc. There is of course, using modern methods of nursing, no difficulty in treating most types of infectious diseases at a general hospital provided that it possesses a sufficient number of small and single wards. The majority of patients suffering from any of the commoner communicable diseases would still, however, be accommodated at the City's Fever Hospitals partly because they are available for this purpose and well organised for it, and partly because general hospital buildings are too expensive and valuable to be used extensively for diseases many cases of which are of a relatively minor character.

Orthopaedics.

(36) Orthopaedic and fracture cases should have provided for them at the new hospital considerable accommodation of a modern character. Present policy is to deal with orthopaedics at general hospitals rather than at special hospitals, and it is recommended that this policy, which experience throughout this country has shown to be sound, should be continued. There is sufficient work of this kind in Liverpool and district to permit of a well-equipped and staffed orthopaedic unit to be organised in connection with each of the municipal general hospitals.

Rehabilitation.

Further, partly in association with the orthopaedic unit, but serving also the remainder of the hospital, there should be made available a rehabilitation unit organised for the purpose of continuing the treatment of all patients until they have regained their full working capacity or have been rendered fit for any employment suited to their physical condition. If the Government fully implement the Beveridge Report, with such modi-

fications as may be considered necessary, the municipal general hospitals are likely to play an important part in rendering workers physically fit for transfer from one occupation to another.

Rehabilitation should be regarded, not as a separate subject, but as a fuller and completer form of ordinary treatment and it should therefore become an integral part of a hospital's functions, special centres for this purpose being only required for exceptional or long-term cases, and, in particular, those cases where the treatment must be associated with re-training for a new vocation.

Maternity.

That maternity wards should be associated with a general hospital has been accepted doctrine in the municipal service for so long that it is unnecessary to make out a special case for it here. The maternity unit at the new hospital should be housed in a self-contained block consisting mainly of wards containing not more than eight beds, many of them single wards, and ample labour accommodation should be provided in the proportion of one such unit to each 6-10 beds. There should be a labour suite and operating theatre and specially-equipped accommodation for premature or weakly babies. As part of a hospital of 1,000 beds the maternity unit should provide 120 or more beds for ante-natal, lying-in and post-natal cases, and it should be associated with gynaecological wards which should be housed in the same block. The provision of new maternity accommodation is the most pressing need in the municipal hospitals, the present buildings consisting almost entirely of premises built for quite different purposes and ill-adapted to this purpose. It is thought that a high priority will be given in the construction of new maternity wards.

Venereal Diseases.

In Liverpool, patients suffering from venereal diseases are treated, as out-patients, at three clinics, and there is in-patient accommodation provided at Belmont Road for any cases for which, owing to the severity of the disease or the circumstances of the patient, treatment in hospital is necessary. Cases of venereal disease may occur alone, may complicate

other conditions (such as pregnancy) or may be responsible for manifestations, such as specific heart disease, which more properly concern the general physician. A general hospital is well-equipped and staffed to deal with complications of this kind and accordingly it is recommended that a small number of beds for cases of venereal disease requiring, for any reason, in-patient accommodation should be provided in one of the medical blocks. Probably 40-50 beds only would be required for this purpose. It is likely that methods involving more intensive treatment of these diseases will be introduced in the near future and this will require the provision of hospital beds.

Skin Conditions.

The Medical Superintendents are also of the opinion that some accommodation should be provided in general hospitals for dermatological conditions which do not require, for treatment, very specialized equipment such as the Finsen lamp. Many cases of skin diseases attending the out-patients departments of general hospitals are not primarily dermatological in origin and some require superficial X-ray therapy which can well be given at any well-equipped hospital. Few of these cases require bed accommodation. It is not, therefore, necessary to allocate any particular ward at the new hospital for dermatology, but the out-patient department should be designed so as to be capable of handling most of the ordinary skin conditions, and the attendance of a dermatologist should be provided.

Dentistry.

The provision for conservative dentistry is inadequate in almost all the hospitals and should be increased. This need is likely to arise shortly in relation to the treatment of rheumatism.

In the past the dental provision made in the hospitals has been quite inadequate. With the exception of sanatoria and children's institutions, conservative dentistry has not been practised, the dental surgeons having mainly been occupied with the extraction of septic teeth. During the war the setting up of a facio-maxillary unit under the E.M.S. has necessarily led to the employment of a whole-time dentist. But the services of a dentist are not only required for the treatment of fractures

of the jaw; there are a variety of acute and painful conditions which may arise both with in-patients and out-patients and there are a number of chronic dental conditions which have a bearing on systemic diseases such as rheumatism, gastric and duodenal ulcer, anaemia, etc. There is a good case for the establishment of a junior residential officer in each of the four principal hospitals. Facilities for making artificial dentures should also be made for the general hospitals and institutions.

Psychological Cases.

(37) Hitherto patients suffering from any kind of mental abnormality have been treated in the special division wards of one of the municipal general hospitals. At one other hospital a psychiatrist has been appointed to the consulting staff. Though cases of mental dysfunction are difficult to classify they may perhaps be placed, as regards administrative action, into the following categories:—

(a) Cases of neurosis or the milder types of psychoneurosis which are likely to benefit from psychological investigation and treatment.

(b) " Border-line " cases which may be, or may become, certifiable but in which psychological investigation and treatment are clearly indicated.

(c) Cases which are clearly certifiable.

In each of these groups two sub-divisions should be recognised:—

(i) Patients in whom the mental disturbance is the sole complaint.

(ii) Patients in whom the mental state exists as a manifestation of, or in association with, some other pathological condition.

(38) The present practice in the city is that practically all cases showing signs of mental instability are sent to Smithdown Road Hospital for diagnosis and transfer, if necessary, to one of the Lancashire Mental Hospital Board's institutions. From time to time cases arise, in the general wards of hospitals, where the mental complications of various diseases cause difficulty in nursing patients safely under ordinary conditions. Cardiac mania, puerperal mania and the delirium of pneumonia are

examples of such conditions. In such states it is probable that mental symptoms will subside as soon as the underlying physical condition has been sufficiently improved by treatment. For such types of cases it would be appropriate to provide, in any new hospital, accommodation in which to detain these patients for a temporary period until the mental condition has been restored to normal, as far as this may be possible, by treatment of the underlying physical cause.

Generally speaking, however, the function of the general hospital should be regarded as embracing the investigation and treatment of mental abnormalities of the milder types, including the neuroses and psychoneuroses, which affect to a greater or lesser degree such a large proportion of the population. These conditions have been largely neglected by the general hospitals in this country although much attention is paid to them in similar hospitals in the United States; and, as a consequence of this neglect, the number of medical practitioners trained as psychiatrists, although increasing, is still very small in this country. Although a number of general hospitals in this country have a psychiatrist attached to them, only a few attempt to deal in any adequate way with problems of emotion and behaviour which, when untreated in the individual, give rise to so much unhappiness and cause such a large amount of industrial and social inefficiency. This is a relatively unexplored field in English medicine and English hospital practice, but its importance is considerable.

The Medical Officer recommends that in planning new hospitals, consideration should be given to the need for the provision of in-patient and out-patient accommodation for patients suffering from the minor degrees of mental abnormality and personality defect. In connection with this branch of the hospital's work the appointment of a full-time psychiatrist might be found necessary.

Chronic Sick.

(39) The number of chronic sick is likely to increase with increasing longevity, and the modern hospital, while affording care and maintenance to those who are incurable, finds itself more and more able, as the

resources of medicine multiply, to improve the physical condition of the old and infirm. Many types of chronic sick would not readily fit into the organisation of a modern general hospital, and it is to be remembered that the distinction between an acute and a chronic disease is by no means clear cut. On the whole it seems desirable that some accommodation of a suitable type should be available at each general hospital for chronic sick—possibly amounting to about 10 per cent. of the total number of beds. Some disabling chronic diseases, especially rheumatism, should receive more intensive treatment in the general hospitals and thus many of the cases would possibly never reach the stage of disablement. In the Medical Superintendents' opinion, "chronic cases, not requiring special nursing, and especially those whose expectation of life is long should be accommodated in homes in pleasant surroundings where they might do gardening, handiwork, etc., to occupy their time and maintain their interest in life." Much the same considerations apply to the aged man or woman who is not ill but who, in default of the care of relations, requires some measure of assistance from the local authority. There are certain types of chronic rheumatic disease which in the past have received inadequate treatment and have led to prolonged invalidity.

Special Centres.

(40) The use of special centres has received much prominence in the present war owing to the activities of the Emergency Medical Service. Amongst these centres the most important are those dealing with Chest Surgery, Maxillo-facial Surgery and Neuro-Surgery. Urological surgery will also require one or more special centres in the future. A special centre requires equipment not usually found in a general hospital, and a medical, nursing and technical staff trained in the operative and other procedures necessary for the treatment of patients suffering from unusual or exceptional conditions. Owing to these requirements it is neither practicable nor desirable to establish special centres at every hospital—even a very large hospital—and these centres should therefore be considered in connection with a system of hospitals, providing a service for an area much exceeding that of any single local authority. At present Liverpool and district possesses maxillo-facial and thoracic surgery units

at the Broadgreen Hospital; and the preliminary organisation is being set up to establish a neuro-surgical centre at the Royal Infirmary. The Tropical Diseases Unit at the Smithdown Road Hospital should continue for some considerable time after the war is over. The dermatological unit in Belmont Road has been long established and has been expanded during the war. It is, of course, essential that all these special centres shall be continued and extended when the war is over, and they will, no doubt, be a subject of interest to the local planning councils, under the National Health Service, covering this area and their facilities made available for the inhabitants of a considerable part of Lancashire, Cheshire and, possibly, North Wales.

(41) When new hospitals are built in Liverpool some years after the war the question of the location of the present special centres will require consideration. As a matter of interest to an individual hospital it would be sound policy to allow each of the three new general hospitals to accommodate one of these centres. The Smithdown Road Hospital, with its large provision of mental accommodation, might well be used as the headquarters of a Psychological and Psychiatric Centre. Space for this purpose will be available at Smithdown Road when the Lancashire Mental Hospitals Board is able to provide adequate accommodation for the severer types of mental cases.

(42) Most of the considerations discussed in the preceding paragraphs relating to the new hospital recommended to replace the Mill Road Infirmary apply, *mutatis mutandis*, to the reconstruction of the Walton Hospital, which will result in a new hospital of a similar kind but of considerably larger size. It is to be observed that the building of two large municipal hospitals and a voluntary hospital in Liverpool in the ten years or so following the cessation of hostilities will be an undertaking of considerable magnitude as it will coincide with much constructional work in connection with houses, factories and schools. At this juncture it is impossible to form a judgment as to the constructional capacity of—it is hoped—a largely-expanded building industry. Priorities will undoubtedly be against much building of new hospitals for some years after the war is over. The hospital building programme referred to in this Report

and proposals in regard to new buildings for the various clinic services must, therefore, be regarded as long-term policy to be carried into effect gradually over a period of years as the demands on the building industry for the production of houses become less urgent. In the Medical Officer's opinion the building of a new hospital to replace Mill Road Infirmary should have priority over the reconstruction of Walton Hospital if land is available.

THE CHILDREN'S HOSPITALS.

Alder Hey Hospital.

(43) These consist of the Alder Hey Children's Hospital and the Olive Mount Children's Hospital. Alder Hey, one of the largest and best-equipped of the small number of local authority children's hospitals in this country, possesses 900 beds, together with about 360 beds built by the Ministry of Health and used during the war for E.M.S. purposes. This use of beds at Alder Hey for emergency purposes will cease at the termination of the war and the hospital will then be free to use its abundant bed accommodation for the purpose of treating diseases and conditions in children drawn from a wide area. Alder Hey Hospital, though built by the Guardians as an institution and not as a hospital, has adapted for this purpose exceedingly well.

Because of its traditions and its organisation, built up over a period of a quarter of a century, Alder Hey should undoubtedly be retained as a children's hospital in the post-war period. As the number of beds has increased since the war began the opportunity for a large extension in the field of work in children's diseases covered by this hospital is apparent. Some diseases in children, especially rheumatic affections of the heart, require a long period of rest and recumbency in order to ensure as large a measure of recovery as is possible. Until the new accommodation was built at Alder Hey it was not practicable to immobilise many beds for a sufficient length of time to deal with more than a small number of cases of this kind. It is recommended, therefore, that a proportion of the new accommodation at Alder Hey be used after the war for dealing with rheumatic heart conditions in children. This recommendation, if accepted,

will involve the continuance of the present arrangement for the user of these buildings contained in a contract entered into with the Ministry of Health in 1940.

Apart from extensions in the scope of the work, such as that referred to above, the functions of this hospital should, it is thought, be continued after the war much as in the past, with such modifications and improvements, especially in regard to staffing, as future advances in the science and art of medicine render expedient.

Olive Mount Hospital.

Olive Mount was built as a Cottage Homes by the Select Vestry of Liverpool. Since the transfer from the Board of Guardians in 1930, it has been used partly as a receiving home for children where those under five years were retained and partly as a hospital. This hospital is pleasantly situated in 30 acres of land which slopes towards the south and east. The building consists of an administrative block with a closely-attached reception block of 50 beds with cubicles (18 single and 8 double), 4 ward blocks each of 40 beds with verandahs, and 16 cottages each with 15 beds; several of these cottages have been converted for staff purposes. The effective accommodation is, therefore, about 400 beds.

It has been largely used in the past for the reception of minor infectious disease and convalescent cases from Alder Hey. During the war it has been largely occupied by "Social Cases," i.e. children of sick mothers, orphan, illegitimate, etc., some being short period and some long stay cases.

It has never been fully occupied by children and in war-time great difficulty was experienced in getting assistant nurses and foster mothers, who have largely constituted the nursing staff in the past. The hospital has accordingly been approved temporarily as an affiliated training school for nurses. It is necessary that a nurses' home should be built at an early date, or an adjacent house purchased that could be adapted for that purpose.

The future of the existing buildings is doubtful. If, after the war, the committee take over the hutted wards at Alder Hey a considerable part

of the cottages might become redundant. In this way some 20 acres would become available as a site for a new municipal general hospital if no better alternative site were available. If this site were used for building, the 4-ward block might remain as part of the new hospital.

THE INSTITUTIONS.

(44) These consist of the Belmont Road Hospital, possessing 1,939 beds, and the Kirkdale Homes, with 1,531 beds. The former is now a mixed institution accommodating old people, chronic sick and infirm and possessing a number of hospital beds for the performance of minor medicine and surgery. It is not equipped or staffed as a general hospital but it has a large skin clinic which is one of the best in this country. Belmont Road Hospital is not suitable for adaptation as a first-class general hospital as the amount of land available for building is small and the institution's blocks, although in a good state of repair, are old and not worth the expense of alteration for acute hospital functions. They can, however, be adapted for the increasing needs of the growing population of bedridden old people, as indeed many of the blocks have been so adapted. This hospital, however, fulfils a very useful function, being intermediate between the fully-equipped general hospital and the institution which caters only for the aged and infirm. It seems unlikely that the usefulness of a mixed institution of this kind will be superseded as a result of legislation based on the Beveridge Report. Many of the social difficulties of old people result from minor degrees of physical or mental impairment, from the death of husband or wife or from the unwillingness of relatives to accept any responsibility for their care. The usefulness and amenity of Belmont Road Institution would be greatly increased by modern heating facilities and by the erection of a three-storey corridor in replacement of the existing single-storey corridors, provided with lifts for patients and food.

The Medical Officer of Health feels doubtful, however, whether the care of old and infirm people who are not bedridden is best carried out in institutions of the type of Belmont Road and Kirkdale Homes, although the former now contains only a few inmates who are not bedridden. These

places, built many years ago, are a typical product of the Poor Law of the early nineteenth century and of a conception which stigmatised poverty as, if not a crime, at least a disgrace. We have to-day departed far from these conceptions, and modern policy is to provide comfortable accommodation and amenities for those who, in old age, come under the care of the State. Some of the inmates of our institutions enjoy sleeping in large dormitories and sitting in crowded day rooms where there is at least incident and life, persons to talk to and, perhaps, talk about. One suspects, however, that conditions of this kind are tolerated rather than enjoyed by the majority who would, if they had them, appreciate smaller and less severe-looking bedrooms and dayrooms and a chance of much greater privacy. It is probable that with increasing education and well-being the views of the old people will tend towards desiring greater privacy.

The ideal accommodation for old people would consist of a series of small buildings, some providing for 20-30 people, others containing rooms for as few as 2 or 3. There would be gardens between the buildings in which the inmates would be allowed to work if they were able and willing to do so, and a central dining-hall and recreation rooms. Many of these old people would not be able to look after themselves, and the services of attendants would be required, as at present.

(45) A radical change in the arrangements for the care of old and infirm people, such as is suggested in the last paragraph, will not, however, be practicable for at least some years after the war is over, and if it comes to a question of priorities, as is likely, hospital building should take precedence over the building of an institution of the kind referred to. It is to be borne in mind that with increasing longevity the proportion of the population over 60 steadily increases and may not improbably double, say, in the course of thirty years.

Kirkdale Homes.

Some consideration has already been given to the question of the retention of the Kirkdale Homes as part of the service in para. 33; and it was there recommended that this institution should cease to be used for the

accommodation of the aged and infirm as soon as the whole, or a sufficiently large part, of the Walton Hospital had been rebuilt. This transfer of the inmates from the Kirkdale Homes to the rather better accommodation ultimately rendered vacant by the building of new hospital blocks at Walton should, however, be regarded as the first stage only in the re-organisation of the institutions—the second stage, a number of years from now, consisting of the building of homes for aged and infirm persons on the principles briefly laid down in the preceding paragraph.

In the meantime, it seems inevitable that the Kirkdale Homes should continue to be used as an institution for some years with such detailed improvements in its accommodation as may be considered necessary, such as building a central stores in place of the existing scattered units.

There are a certain number of sane and mental epileptic patients accommodated in Kirkdale Homes and Smithdown Road Hospital who would be better off under rural conditions where the occupations that can be provided in such surroundings would conduce to the mitigation of their symptoms. The number, however, is hardly adequate for an ad hoc Institution to be set up by the City and it might be desirable, under the new comprehensive medical services, that arrangements should be made on an area basis for the treatment of such patients not only from the Liverpool user agreement area but from other surrounding areas.

There are also a certain number of non-epileptic mental patients who could be dealt with by the Lancashire Mental Hospitals Board when additional accommodation becomes available.

SHORT-TERM POLICY IN REGARD TO THE CORPORATION HOSPITALS.

(46) At the outbreak of war a number of building projects were proposed and had reached the stage of preparation of plans or even of acceptance of tenders. All such new construction should be reconsidered in the light of war experience, of the possible alterations of outlook due to the Government's proposals for a comprehensive medical service, and in view of any post-war building difficulties in the way of availability of materials and labour. Some of the work is obviously necessary and an integral part of a unit which is regarded in this report as not subject to major structural alteration, e.g. the extension of the laboratory at Alder Hey Hospital.

In other cases, however, such as the proposed admission and continuation block at Walton, it is necessary to reconsider the siting of any such building in relation to the future re-planning and rebuilding of the hospital if that is approved.

In the case of maternity units, these can be self-contained and their siting can be so arranged that they will not obstruct any future reconstruction. The need for these departments is urgent and it is hoped may receive from the Government a fairly high priority in hospital construction. In both Walton and Smithdown Road it will be necessary to consider the relationship of such new buildings to any large reconstruction of the hospital that may be proposed for the long-term policy.

Priority Work.

Proposals made prior to the war.	Now considered necessary and urgent.
Alder Hey. Completion of new laboratory.	**Alder Hey.** Nurses' teaching unit and sick bay. New Out-patient Department. Cubicalisation of Wards.
Broadgreen.	**Broadgreen.** Provision of covered ways between wards (provision in Estimates, 1945-46). Extension of nurses' home (provision in Estimates, 1945-46). New laboratory. Accommodation for Medical Officers.
Walton Hospital. *Admission and Out-patient Department. *Maternity Department.	**Walton Hospital.** New Operating Theatre (in progress). New Laboratory (provision in Estimates, 1945-46).
Smithdown Road. *Extension of Out-patient Department (plans prepared but should be revised). Maternity Department (plans prepared but should be revised).	**Smithdown Road.** Central Stores and Kitchens.
Belmont Road. Reconstruction of laundry, central heating plant and boiler house. (Plans prepared and approved). (Part provision in Estimates).	**Belmont Road.** Building of corridor to three storeys (should preferably proceed at same time as heating). **Kirkdale Homes.** Provision of Central Stores.

* These should be considered in relation to any reconstruction proposals.

Proposals made prior to thc war.	Now considered necessary and urgent.
	Mill Road Infirmary. Rehabilitation of Block A, Lift, Stairs, etc.
Fazakerley Annexe. Replacement of wooden wards.	**Fazakerley Sanatorium.** Reconstruction of West Block (provision in Estimates).
	Cleaver Sanatorium. Additional wing—about 80 beds. Extension (top floor) to Nurses' Home. Additional storey to administrative block. Extensions to kitchen, dining hall and laundry.
	Seafield House. Adaptation.
	City Hospital East. Provision of cubicles (provision in Estimates).
	General. Provision of accommodation for medical and nursing staffs.

All the above proposals may, it is thought, be considered as part of a short-term policy to be implemented within five years from the date of the cessation of hostilities, since no single item involves a very large diversion of labour or materials from the building of houses and other essential post-war constructional activities. There is, moreover, some likelihood that sanction may be given to some or all of the foregoing proposals at least towards the end of the first five-year period. The building of new hospitals, on the other hand, must be regarded as forming part of the Committee's long-term policy.

PROPOSALS IN REGARD TO STAFFING OF HOSPITALS.

(47) A justifiable criticism in regard to the municipal hospitals both in Liverpool and elsewhere during the period from 1930 to 1939 is that the amount of staff, in several categories, was insufficient to deal adequately with the rapidly-increasing volume of work. This criticism applies especially to the higher grades of medical staff and to the technicians, both male and female, employed in laboratories, massage departments and X-ray departments, and also the clerical staff assisting the medical staffs

with records, correspondence, etc. Great improvements in this respect had admittedly taken place since 1930 and, no doubt, further additions to the staff would have been made but for the outbreak of war in 1939.

It was true in 1939, and is still the case, that the number of resident medical officers, both senior and junior, and consultants, in relation to the number of beds, the number of out-patient attendances and the nature of the cases treated in the general hospitals tended to be insufficient to enable first-class work to be performed. This proportion of medical staff to patients is much smaller than in the voluntary hospitals, although there are special circumstances in the case of these hospitals which render a rather higher standard of medical staffing desirable. The discrepancy between the two hospital systems is, however, very marked, and this especially applies to consultants.

As an example of the standard of medical staffing ultimately desirable in a municipal general hospital of 940 beds there may be mentioned the opinion expressed by the Ministry of Health's Surveyors in their report on the "Hospital Services of London and the Surrounding Area." They recommended for a non-teaching hospital of the above size the following medical staff, the figures being given **in terms of full-time service**:—

General physicians	4
General surgeons	4 (including one specialising in fractures and orthopaedic work).
Paediatrician	1
Obstetrician and gynaecologist ...	1½
E.N.T. surgeon	½
Neurologist	⅓
Dermatologist	⅓
Ophthalmic surgeon	⅓
Genito-urinary surgeon	⅓
Radiologists	2
Pathologists	2
Anaesthetists	2
Physiotherapist	1

In addition to the above senior staff, the Surveyors suggest that the hospital would also require 8 juniors of the Registrar grade, 3 resident anaesthetists and 12 housemen.

As regards the junior ranks of residents, an increase in the number employed in each of the three general hospitals and at Alder Hey would have a beneficial effect, and this proposal involves no difficulties beyond the provision of additional accommodation. The question of the appointment of consultants is more difficult, involving matters of policy which may be discussed here.

Consultants.

When the municipal hospitals were taken over from the Guardians in 1930 it was found that each had on its staff a small number of visiting physicians, surgeons or specialists who attended the hospital on one or more occasions each week, seing such cases as were referred to them by the resident medical staff. The consultant was in no way responsible for the generality of patients in any particular wards in the hospitals and, except for emergency surgery, he seldom visited the hospital on days other than his visiting days. He had, in other words, no continuing responsibility for the patients in any of the wards. This responsibility rested, and still rests, upon the medical superintendents and the senior residents. It has already been said that the number of such consultants, in 1930, was very small. During the period from 1930 to 1939 the efficiency of the transferred hospitals increased to a marked extent and some of this improvement in efficiency was due to the appointment of further part-time visiting consultants.

(48) All consultants employed at municipal hospitals in Liverpool (with one or two exceptions) are also on the honorary medical staffs of voluntary hospitals and this ensures an association between the two systems of hospitals which is of great value to both sides. In spite of the appointment of consultants, however, much of the responsibility for the treatment of patients still remains with the senior resident staff. These are designated Senior Resident Medical Officer, Senior Resident Surgical Officer or Senior Resident Obstetrical Officer, and such appointments are sometimes held by men possessing the highest qualifications who, in the course of a few years, acquire a great amount of experience. One difficulty in regard to these men, to which the Medical Superintendents have repeatedly drawn the Medical Officer of Health's attention,

is that the municipal system provides no future career for these clinicians of the highest qualifications and experience. Such men, attached to voluntary hospitals, would have the opportunity of an honorary appointment on the staff and an excellent chance of a clinical career in private consultant practice with the financial rewards which such a career may bring. The senior resident at a municipal hospital, however well qualified and experienced he may become, has a very slender chance of being appointed an honorary at a voluntary hospital and, in present circumstances, no further opportunities of promotion in a clinical capacity in the Corporation's service.

(49) This circumstance that the Corporation's hospitals are failing to provide a sufficient career for men trained in the service has the disadvantage that it hinders the recruitment of first-class men to that service. The medical superintendents also point out that a certain number of senior residents with first-class qualifications have joined the Army or other services since 1939 and some of these have expressed a desire to return. Most of these men are over the age of 30 and are, therefore, concerned about their careers.

Full-time Consultants.

A solution of this difficulty, recommended by the medical superintendents, is that a proportion of full-time consultants and specialists should be appointed to each of the municipal hospitals working on parallel lines and equal in status to the part-time visiting staff. Medical Officers occupying the grade of full-time consultant should, in general, be over the age of 30 and should possess the ordinary consultants' qualifications, namely, the F.R.C.S., M.R.C.P., or M.R.C.O.G. They should, of course, possess extensive clinical experience in their particular subject and should be regarded, in the municipal service, as equivalent in status to an honorary at a voluntary hospital. Their designation might be Senior Surgeon, Senior Physician or Senior Obstetrician, and each would be responsible, under the administrative but not clinical charge of the medical superintendent for the work in his particular subject in the hospital, being assisted by a senior resident and one or more junior residents. The salary payable in respect of these appointments should be in the

region of £1,250—£1,500 (including emoluments) and there might be possibilities of increases in this scale. A Senior Surgeon, etc., would have continuing responsibility for the care of the patients under his charge and with his assistants would form a "team" undertaking the work of perhaps several wards.

In one or two of the larger hospitals it might be found necessary to appoint more than one Senior Surgeon or Physician but this would not be the case in connection with obstetrics, as maternity units are not likely to exceed 150-200 beds in any one hospital. Resident married quarters should be provided for some of the officers, especially in the case of obstetrical appointments.

The Medical Officer of Health recommends this proposal to the favourable consideration of the Committee on the grounds that it would greatly strengthen the medical staffing of the Corporation's hospitals and would create a degree of continuity in their medical administration. The continuance of the principle of visiting consultants, together with new appointments of the kind suggested, would remove one of the main criticisms of the present staffing of municipal hospitals. It is important, however, that very great care should be taken in connection with the making of these appointments.

Pathological Services.

(50) Another section of the hospitals' services which requires improvement is that of the pathological laboratories, which play an important part in diagnosis, treatment and prognosis. Modern medicine, for good or ill, is in fact becoming increasingly dependent upon the assistance of the laboratory which should be regarded as one of the most essential services in the hospital and equipped and staffed in a manner commensurate with its important functions.

Prior to the war an attempt was made to improve the equipment and staffing of the pathological laboratories at the three general hospitals and at Alder Hey and Fazakerley, and considerable progress was made. One difficulty experienced was that the number of skilled pathologists willing

to accept full-time appointments in the Corporation's hospitals at the salaries then offered was very limited, and the Committee was sometimes unsuccessful in securing satisfactory candidates for advertised vacancies.

It is recommended that the Committees future policy in regard to the pathological services shall be: (a) to appoint one full-time senior pathologist at each of the three general hospitals and at Fazakerley and Alder Hey, and (b) to pay to the senior pathologist a similar salary to that of a Senior Surgeon or Physician, namely, £1,250—£1,500 per annum. On this basis of salary satisfactory appointments can readily be made. Probably a junior pathologist will also be needed at each main laboratory. An improvement in the standard of accommodation provided for the pathological laboratories and in their equipment is also necessary.

Laboratories. The amount of work falling upon the laboratories has continued to rise during war-time, and almost every hospital laboratory requires enlarging as an urgent matter. The laboratory at Smithdown Road has expanded into the former X-ray department, but at Alder Hey, Broadgreen and Walton, extensions of the existing laboratories are urgently required. Amongst other things the extended use of the sulphonamide drugs and the use of penicillin have made new demands as they require continuous laboratory control to be exercised.

Medical Superintendents.

(51) The pivot on which the internal administration of a municipal hospital turns is the medical superintendent, whose duties, if he is in charge of a large hospital, are arduous and responsible. He is in full clinical and administrative charge of his hospital, being responsible, through the Medical Officer of Health, to the Committee for the proper working of all the numerous units of which the hospital is composed. Under him is a medical staff consisting of junior and senior residents, the Matron and nursing staff, the steward and the different grades of staff under him, including engineers and porters and the almoners and clerical staff. The Medical Superintendent of a large municipal general hospital may be responsible for the proper conduct and integration of the work of as many as 700-800 employees, in a large number of different categories, most of whom are highly-skilled personnel, performing duties

which require long and expensive training. Apart from the permanent full-time staff the Medical Superintendent has the responsibility of organising the duties of the visiting consultants and specialists with whom, on frequent occasions, he has to confer on matters relating to individual patients or to the general work in the wards and operating theatres. In some of the hospitals the Medical Superintendents hold informal conferences with the consultants and specialists at regular intervals and these contacts between the administration and the higher rank of the clinicians are most valuable as they help to maintain good relations between the full-time medical staff, whose professional interests are wholly centred on the hospital, and the part-time staff, whose interests are more widely dispersed.

Although the post of medical superintendent is mainly a local authority type of appointment, this is not entirely so, as a few voluntary hospitals have appointed medical men as their chief administrative officers, with this designation. In general, however, the voluntary hospital appoints a lay superintendent or secretary who conducts the official business of the hospital but has no responsibility for the nursing staff or, naturally, for the clinical work in the wards. Co-ordination of the various services of the hospital in these circumstances is undertaken by the medical board, consisting of the senior honorary consultants and specialists, which has a very important voice in the general administration of the hospital.

Such arrangements, well suited to the administration of a voluntary hospital, are, in the Medical Officer of Health's opinion, wholly inappropriate in the case of a municipal hospital and particularly so if that hospital forms part of a system of hospitals as in Liverpool. In Liverpool it is essential for the working of a large number of hospitals of widely-differing types associated with a comprehensive Public Health Service that there should be a single committee governing the whole of this integrated service through a central office administered by a chief officer. The functions of the chief officer, working under the Corporation's Committee, are to co-ordinate and integrate large numbers of hospitals, clinics and other units into a harmonious and closely-linked service. In this service the medical superintendents are important, indeed essential, links.

No lay administrator could, it is considered, perform essential services of this kind in a municipal hospitals service as well as a medical man who, in addition to carrying out ordinary administrative duties, can co-ordinate the work of the consultants and specialists and other professional staff. The alternative to the medical superintendent, namely, administration by medical boards, seems alien to the local authority system.

Conferences with Consultants.

(52) While, however, it is recommended that the medical superintendents shall be regarded in the future, as in the past, as the responsible officers in charge of the larger municipal hospitals, it may be desirable to consider whether a closer relationship should not exist between medical superintendents and the consultants and specialists employed at their hospitals. These men, many of them of very high standing in their profession, do not consider that they are quite so much a part of the municipal hospital as they are of the voluntary hospital. This must, to some extent, always be so as the voluntary hospital medical board, deciding medical policy, is not a suitable organisation to be incorporated into the structure of the municipal system.

An alternative to the formal medical board of the voluntary hospitals would be the formation of **advisory** medical boards at the three general hospitals and at Alder Hey. Such boards, it is suggested, should consist of the senior medical staff of the hospital, both full-time and part-time, and should hold regular meetings. Their function would be to advise on medical matters referred to them by the medical superintendents and they might be given the right of access to the Hospitals Committee on questions relating to the hospitals where they are employed.

(53) One of the criticisms made by the voluntary hospitals against the local authority system of governing hospitals is that the medical superintendent is not only in administrative but also in clinical charge of his hospital and that, being responsible for the clinical oversight of all patients in the hospital, he is empowered to alter the treatment prescribed by the consultants. This is, of course, a technically accurate statement of the powers of the medical superintendent, but it would also be true to say

that action of this kind is only exceptionally taken by the medical superintendent and then only if the condition of the patient has changed since he was seen by the consultant. In other words, this power is only used in emergencies, solely in the interests of the patient.

In practice, the medical superintendent does not interfere with the clinical work of the consultant and the resident medical officers carry out the instruction of the visiting physicians and surgeons in regard to diagnosis and treatment. It is to be noted, however, that the proportion of consultants and specialists at a municipal hospital is much smaller than at a voluntary hospital where the "honoraries" are in actual charge of beds and have continuing responsibility for their patients whom they admit to their wards. At a municipal hospital the responsibility for admission rests with the medical superintendent, and the number of patients is so great that it would be impossible for a visiting physician or surgeon, on the present basis of staffing, to be aware of the clinical condition of each of them. In consequence, the greater part of diagnosis and treatment has, in the past, been undertaken by the full-time medical staff of the hospital, some members of which are, of course, highly qualified, and only cases presenting some difficulty are seen by the visiting medical staff. Under the proposals contained in para. 49 for the appointment of full-time consultants, it would be practicable for the visiting staff, together with the full-time consultants, to exercise continuing responsibility for all cases in hospital.

REHABILITATION.

(54) The duty of a hospital, as it has usually been conceived in the past, is to deal with a patient until he has got over the critical period of his illness and then to discharge him either to his home or to a convalescent hospital where, under the supervision of his general practitioner or, frequently, under no supervision at all, he sooner or later, recovers and goes back to the duties which occupied him before he was ill. Few hospitals, except perhaps those dealing with orthopaedics, considered themselves under any obligation to ensure that the patient, on discharge, had fully recovered his original state of health and working

capacity or, if that was not possible, had attained the maximum state of physical fitness consistent with his condition.

During the past few years this attitude has undergone a change, and interest is now being shown in what might be termed the after-care of patients beyond the stage when the acute part of their illness is over. The report of the Tomlinson Committee emphasised the need for extensive arrangements for the rehabilitation of patients on the part of hospital authorities, and the Ministry of Health have asked such authorities, including local authorities, to set up organisations for this purpose. Rehabilitation is a new duty placed upon the shoulders of local authorities and it will involve additional expenditure which is to be borne without assistance from the Exchequer. It is not, however, an entirely new subject either for local authorities or the voluntary hospitals as it forms part of the ordinary scheme of treatment in connection with orthopaedics and is one of the reasons for the length of stay in hospital of patients suffering from conditions which are dealt with in the orthopaedic wards. Patients suffering from other conditions who might benefit from a suitable period of after-treatment following the acute stage of the diseases have not hitherto been afforded facilities for this purpose by most hospitals in this country.

A scheme for providing facilities for rehabilitation may be discussed under the following headings:—

(a) Facilities to be provided in hospitals as part of in-patient treatment.

(b) Facilities in convalescent homes or hospitals.

(c) Provision as out-patients, either in hospitals or in special centres.

(d) Vocational training.

(55) As regards facilities for rehabilitation to be provided in hospital, the situation at present is that there is an efficient rehabilitation unit at the Alder Hey Hospital working in conjunction with the E.M.S. orthopaedic wards, and this would be available for the general work of the municipal hospitals at the end of the year. At the three general hospitals, although there are physiotherapy departments which are being expanded

to meet this aim as far as at the moment is practicable, there are no adequate facilities for rehabilitation and these will have to be organised on a sufficient scale if the Committee adopt the policy of maintaining rehabilitation units at each hospital.

In general, the rehabilitation of a proportion of patients admitted to any hospital will have the effect of prolonging the average duration of stay in hospital and will accordingly increase the average cost of treatment. If the process of rehabilitation is applied to a large proportion of patients, difficulties in regard to accommodation will be experienced. As far as present knowledge of this subject goes it appears unlikely that very many patients will require rehabilitation **in hospital,** the majority being dealt with in other ways as, for example, as out-patients or in convalescent homes. In either case increased staff and equipment will be necessary. One question for early decision in regard to this part of the subject is whether full rehabilitation arrangements should be made at each of the three general hospitals or at one centre only. A large and well-equipped specialized rehabilitation unit would provide adequate facilities for all three of the city's general hospitals and might be considered as constituting a satisfactory commencement of the scheme. It is likely, however, that other units would be required in the general hospitals as time went on. An experimental unit at Broadgreen would give the Department experience of the working of a rehabilitation centre and provide staff which would gradually become expert in the procedures necessary to solve the many detailed problems presented by individual patients. Difficulties in the provision of rehabilitation facilities for patients in Liverpool hospitals will arise in connection with some, or all, of the voluntary hospitals; and the Liverpool Hospitals Joint Advisory Committee has appointed a sub-committee to consider the lines on which problems of rehabilitation can be solved either by separate hospitals or by the adoption of a scheme for joint action.

A specialised approach may be found necessary in the case of the Corporation's sanatoria. The method of rehabilitation in connection with the surgery of lung diseases involves exercises for the expansion of the affected part of the lung under strict medical supervision. It is necessary,

therefore, that the rehabilitation unit should be directly associated with the sanatorium or hospital and the patients, during rehabilitation, carefully supervised by the medical staff responsible for their previous treatment. Any units dealing with thoracic surgery should have a rehabilitation centre attached to them.

(56) The second line of approach to problems of rehabilitation is through convalescent homes or hospitals which, in the past, have been few in number and have undertaken little active treatment of any kind, being regarded as places where a patient could have a short holiday before going back to work. If convalescent accommodation is to take an active part in rehabilitation it will have to be provided with special equipment and staff, including medical staff who have been adequately trained in physiotherapy, and it will therefore be a much more complicated organisation than the convalescent homes we have known in the past. The use of suitably-equipped and staffed convalescent homes for rehabilitation purposes will materially reduce the burden on the general hospitals and will prevent the immobilisation of valuable hospital beds for long periods. Normally the rehabilitation would be initiated in the general hospital wards under the guidance of the physician or surgeon who treated the patient in the usual manner, would be continued in the hospital's special rehabilitation unit and would reach its conclusion when the patient had been made as fit as possible to resume his usual mode of life, in the convalescent home. Frequently, however, the condition of the patient would be such that this sequence might be unnecessary and rehabilitation completed at the stage of the hospital centre; while, in a proportion of cases, it might be desirable to send him to a Ministry of Labour vocational training unit with the object of fitting him for a change of occupation.

(57) Many persons, after treatment in hospital for illness or injury, will desire to resume their normal occupations as soon as possible and will feel unable, for economic and other reasons, to devote sufficient time to a full course of rehabilitation in hospital or convalescent home. In certain cases in-patient treatment for a long period of time will be essential but as a general rule there will be a stage in the process of rehabili-

tation at which out-patient treatment in a suitably-designed centre will be an entirely satisfactory method.

Out-patient accommodation for this purpose need not, it is suggested, be organised at a hospital, but preferably in some central situation conveniently accessible to patients from a wide area. Some of the remaining buildings at Mill Road—not now used as a hospital—could be adapted for the purposes of an out-patient rehabilitation centre; there are sufficient rooms for use by the administrative staff and some of the remaining wards could be utilised for physiotherapy, gymnastics, etc. The grounds of the Mill Road Infirmary are extensive enough, when properly cleared, to provide space for games and for the erection of a swimming bath. One disadvantage of this suggested accommodation is that it is situated in a congested part of the city. The advantages, however, seem to outweigh any disadvantages there may be. It is unlikely, in the immediate post-war period, that any buildings could be obtained for this purpose which provide as many amenities and so much accommodation as are to be found on the Mill Road site. To a limited extent the rehabilitation units at the general hospitals could be used for patients living at home but normally these resources would be fully utilised in dealing with patients occupying beds in the hospital.

(58) The last method of rehabilitation, namely, vocational training, falls within the province of the Ministry of Labour and will form part of the Government's social security proposals, applying to patients who, because of disease or injury, are required to change their occupations to work more suited to their physical condition. Vocational training is of interest to local authorities for the reason that patients from municipal hospitals will from time to time be referred to the Ministry of Labour's special centres.

(59) One question of special interest is the extent to which facilities for rehabilitation in Liverpool can be shared on a co-operative basis between the municipal and voluntary hospitals. The policy of the voluntary hospitals has not yet been decided but it seems likely that some of them would find it difficult to immobilise even a small proportion of their

beds for long periods for this purpose. This difficulty is not so serious in connection with the municipal hospitals owing to the fact that they possess many more beds and the average duration of stay in hospital is considerably longer. Moreover, most of the voluntary hospitals have little land available for building the accommodation necessary for the rehabilitation of their patients. For these reasons it seems likely that the voluntary hospitals will make use of some of the facilities to be provided by the municipal hospitals. In present circumstances such arrangements could only apply to Liverpool patients or to patients coming from outside Liverpool from the areas of local authorities which had made agreements with the Corporation.

NURSING SERVICES.

(60) All the hospitals owned by the Hospitals and Port Health Committee are training schools for nurses; the Poor Law Institutions have not, up to the outbreak of war, carried out any of this training. This position has been altered, during the course of the war, by the three Poor Law Hospitals, namely, Belmont Road, Kirkdale Homes and Olive Mount Children's Hospitals, training nursing auxiliaries for the Civil Nursing Reserve in short intensive courses. During 1944, Olive Mount Children's Hospital was temporarily approved as an affiliated training school, as was Cleaver Sanatorium, the latter hospital also providing training for the tuberculosis certificate.

Training is already carried out in the following hospitals:—

(a) General Hospitals. For the general register.

(b) Alder Hey Hospital. For the children's register.

(c) Fazakerley Group. For infectious diseases register and for tuberculosis certificate.

(d) The Southern group of Isolation Hospitals. For the infectious diseases register.

(e) Smithdown Road Hospital in the nursing of tropical diseases.

Rushcliffe Committee Report.

(61) The adoption of the Rushcliffe Committee's report has produced some shortening of the hours of employment which will necessitate a corresponding increase in the number of nursing staffs and, therefore, probably corresponding additions to the Nurses' Homes. Such additions have already been made during the war at Smithdown Road, Cleaver Sanatorium and Fazakerley Sanatorium, and additional accommodation at Broadgreen Hospital is urgently necessary in view of its emergence to the status of a general hospital and the additional hutted wards (350 beds) which have been built by the Ministry of Health.

It is probable that the increasing tendency to emphasise the trainee status of student nurses, and the increasing complexity of nursing procedure, especially in relation to the prevention of infection as emphasised by the report of the Committee of the Medical Research Council on cross-infection in wards, will lead to a larger proportion of trained to untrained nurses being employed in future.

Comprehensive Training.

(62) The view is widely held, partly with a view to reducing the difficulties of staffing the specialised hospitals, and for other reasons, that a comprehensive system of training of student nurses, possibly of four year's duration, should be substituted for the existing separate training for the general and fever register and for the tuberculosis certificate. If this were to be adopted it would be necessary for the amenities in the isolation hospitals and sanatoria to reach as high a standard as they do in the general hospitals. Suggestions that children's hospitals training should also be included in the proposed comprehensive training are, in the Medical Officer's opinion, retrograde and should be opposed.

Nursing the Chronic Sick.

(63) In the past the nursing of the chronic sick has been carried out by a variety of partially-trained nurses and by untrained nurse-attendants, although ward sisters are trained nurses. Many of the assistant nurses were nurses who had undergone a period of training, sometimes in specialist institutions, such as mental hospitals, and who had in many cases failed

in their examinations. On the male nursing side, male nurses had been trained at Walton and Smithdown Road Hospitals and an endeavour was made to appoint only trained male nurses as charge nurses in male wards. Many of the male nurse attendants were trained orderlies from the Army and Navy, and a number of these, being reservists, were called up at the outbreak of war. But a number of nurse attendants, male as well as female, had no training other than that which they received incidentally in the wards, i.e. without any systematic basis.

(64) In future this position will be altered by the Nurses' Act, 1943, which has authorised the issuing of regulations by the General Nursing Council governing the training of assistant nurses. These will undergo a simpler and less exacting period of training and will not be competent to take charge of a ward. There can be little doubt that it will be necessary to set up such a modified training school at Belmont Road Hospital and possibly also at Kirkdale Homes; some provision of resident nursing accommodation may become necessary. The position at Olive Mount Children's Hospital has been met, it is hoped, by the setting up of an affiliated training school, affiliated, that is, to the general hospitals and Alder Hey.

(65) Before the war a training in Nursing, Housekeeping and Dietetics was in operation and led up to an examination and certificate. A number of nurses possessing this certificate hold administrative posts and it is hoped that this course will be resumed as soon as possible after the war.

Maternity Nurses.

(66) Training for Part II of the Central Midwives' Board Certificate has previously been met by an arrangement with the Liverpool Maternity Hospital, Part I training being carried out by pupil midwives in the municipal hospitals. Should it be desired to carry out Part II training in the municipal service it would be necessary to establish one or more district midwifery homes in appropriate parts of the city.

The need for fully-trained Sister Tutors has probably been adequately met by the provision of two annual bursaries for suitable applicants from the municipal nursing staffs.

(66a) Fundamental to any consideration of the training of nurses is the question of the provision of a Pre-hospital Training School. Such a school would bridge the gap between the age of leaving school and the time when the student nurse enters hospital; and it would provide a sound training in some of the basic subjects such as Physics, Anatomy and Physiology as well as general culture. It is to be emphasised that, at least for a considerable time, the Training School would be only one portal of entry to the nursing profession—the other being direct admission to hospital. It is probable that under a 4-year comprehensive training entrance would only be through the preliminary training school hospital.

A Pre-hospital Training School may be set up in Liverpool separately by the municipal and voluntary systems. At the commencement the Pre-hospital Training School should be organised on the basis of 100 places—if for the municipal hospitals alone—with arrangements for expansion as the needs of the Service require. Apart from Pre-hospital Training Schools a Preliminary Training School for 2-3 years will be compulsory after 1948 in all training hospitals.

CHILD HEALTH.

(67) The most striking aspect of the vital statistics of the country is not the decline in the death rates, both of adults and children, great as this decline has been, but the even greater decline of the birth rate; at present birth rates the population is not reproducing itself. The lives of children born healthy should be preserved if possible. Great as has been the saving of child life in Liverpool shown by a fall in the infantile mortality rate from near 200 to about 57 per 1,000 births, the experence of other towns and countries indicates a possibility of a further reduction to 40 or less.

The figures of the principal causes of death are given in the annual reports on the health of the city, but the causes of death for 1943 are representative, namely:—

Respiratory infections	...	... 402	deaths	under 1 year.
Prematurity marasmus	...	... 351	,,	,, ,,
Digestive diseases	...	... 126	,,	,, ,,
Infectious diseases	...	... 87	,,	,, ,,
Other causes ...	...	... 205	,,	,, ,,
Totcl ...	...	1,171		

Undoubtedly the lives of many of these infants can be saved by better care in the homes and in the hospitals. The formation of a Department a Child Health in Alder Hey Hospital and the formation of units for the treatment and care of premature babies in Walton and Smithdown Road Hospitals are indications of the efforts being made to achieve this saving. Such units require very skilled staffs under specialist paediatric guidance. Wherever there are small children in hospital suffering from prematurity or from infectious or skin diseases there should be paediatricians appointed to control their welfare.

Many children are born under circumstances of social difficulty, examples being illegitimate or orphaned children and those whose mothers are in sanatoria and mental hospitals. The death rate amongst these children is considerably heavier than among those normally situated. Many of the children's lives can be saved by appropriate measures in the home and the appointment of more health visitors and of welfare workers.

MUNICIPAL HOSPITALS AND UNDERGRADUATE AND POST-GRADUATE TEACHING.

Goodenough Report.

(68) In the past the teaching of medical students and the provision of facilities for graduates in medicine to work for higher degrees and diplomas has been a function of the voluntary hospitals situated in the various University centres and only a small proportion of this work—mainly in regard to obstetrics, orthopaedics, fevers and tuberculosis—has been undertaken by local authority hospitals. It is unnecessary to detail here the reasons for the past neglect of the abundant clinical facilities of local authority hospitals in connection with the teaching of medical students. This situation has, however, undergone a profound change partly as a result of the Government's proposals in connection with a National Medical Service and partly on account of the issue of the Report of the Inter-Departmental Committee on Medical Schools (Goodenough Report). Any reorganisation of the country's medical services will, it is certain, require the training of many more consultants some of whom

will strengthen the staffs of municipal hospitals; while the Goodenough Report makes proposals in regard to medical education which, if accepted by the Ministry of Health, will of necessity entail the co-operation of local authorities in and near University cities.

The main proposals of the Goodenough Report emphasise the fact that a properly-planned and carefully-conducted system of medical education is the essential foundation of a comprehensive health scheme. It goes on to suggest that the unit of organisation for the national system of undergraduate medical education should be a medical teaching centre, consisting of a university medical school, a group of teaching hospitals (parent and associated) in as close proximity as possible to the medical school, and such clinics of the health service of the district as should be used for teaching purposes. In regard to facilities for clinical instruction the Report expresses the view that groups of hospitals (e.g. for infectious diseases and mental diseases) will be included in the teaching centre and that, as a rule, it will be beneficial to include one or more general hospitals of local authorities provided that they are suitably situated, administered, staffed and equipped and are full partners in the teaching centre. At the centre there would be a parent teaching hospital, either voluntary or municipal, and the teaching work, both undergraduate and post-graduate, should be so distributed between the parent and associated teaching hospitals as to utilise the available clinical material to the best advantage.

(69) The Goodenough Report makes a number of recommendations on matters of interest to the universities and besides these makes two suggestions which concern local authorities, namely: (i) that there should be a joint advisory committee for the appointment to teaching hospitals—including the parent and associated hospitals—of all medical staff above the grade corresponding to that of registrar, and (ii) that every medical student, after he has passed his final examination and before his admission to the Medical Registrar should serve as a junior house-officer for a period of twelve months in one or more approved hospitals.

It is interesting to note that the Goodenough Committee expresses the view that unsuitability for a medical career should be the sole barrier

to admission to a medical school; and that grants to medical students should be adequate in amount and should extend over the whole of the period of training. In this way it will become possible for a much wider selection to be made of young men and women fitted by education and character to enter the medical profession.

Medical Teaching Centre.

(70) At this stage it may be well to attempt to translate these general principles into administrative action as it affects the University, the City and the voluntary hospitals in Liverpool. The medical teaching centre, referred to in paragraph 68 above, would be the University of Liverpool in association with voluntary and local authority hospitals and clinics with which agreements, either formal or informal, would be made for the provision of facilities for undergraduate and post-graduate teaching. As for the " parent " teaching hospital this would, in course of time, be the new voluntary hospital and, until that hospital was built, the Royal Liverpool United Hospital with its four branches and the other hospitals now associated, for teaching purposes, with it. The Goodenough Report envisages, however, a much wider association between the Universities and local authority hospitals, for the purpose of undergraduate and post-graduate instruction, than at present exists. This is to some extent due to the forthcoming need for an increase of about 25 per cent. in the number of medical students and partly because the National Health Service will demand a much larger output of consultants and specialists than the various University centres can now supply. Accordingly it seems likely that the University will ask the City Council to provide facilities in some of their hospitals for teaching purposes, and, if the Council agrees, it will be necessary for the Hospitals Committee to consider whether the staffing of their hospitals is sufficient to enable teaching to be efficiently carried on. In previous paragraphs in this memorandum the Medical Officer of Health has expressed the opinion that an increase in the number of senior staff, including consultants, is necessary in order to raise the standard of treatment of patients; but if the teaching of medical students is undertaken a further strengthening of the senior staff will be necessary, including the appointment of additional medical officers of

registrar status. Such additional expenditure for teaching purposes will, it is understood, be defrayed by Exchequer grants paid through the universities.

(71) From the point of view of a hospital's efficiency the teaching of medical students is wholly advantageous. The presence of students increases the keenness of all grades of medical and nursing staff and the privilege of becoming associated with the University as part of the teaching centre will be dearly prized.

But if the hospital forming part of the teaching centre becomes a more efficient hospital it will certainly, under the new conditions, be a more complicated unit. There will be, for example, a much larger senior staff, which will become, in course of time, as more consultants and specialists are trained, large enough to exercise continuous care of the patients in their wards. Such a staff, comprising senior consultants will, no doubt, wish to be more closely associated with the administration of the hospital through a medical board.

" Interns."

(72) The recommendation in the Goodenough Report that medical students, after the final examination and before being admitted to independent practice, should spend a year in hospital may lead to the request that the municipal hospitals should admit their quota of " interns " each year. After the war the yearly output of qualified students from the University of Liverpool will soon reach the figure of 100, and these will need to be distributed into suitable hospitals throughout the district. It is possible that the quota for the Liverpool municipal hospitals may be 30 or 40 each year. These students, who will require living accommodation and perhaps a small salary, will be equivalent in status and experience to a house surgeon or house physician at a voluntary hospital on first appointment, and they will, of course, add appreciably to the strength of the junior medical staff. If this recommendation of the Goodenough Committee is accepted, as is likely, some consideration should be given to the question of fitting into the organisation of some of the municipal hospitals a rather more junior grade of medical officer

than has hitherto been employed. In particular, resident accommodation should be arranged.

Post-graduate Courses.

(73) As has been indicated in the paragraphs immediately preceding, some undergraduate teaching will take place in local authority hospitals. The most important contribution of local authority hospitals to medical education is, however, likely to be in the direction of the organisation of post-graduate courses (i) for the training of future consultants and (ii) for the further training of medical men and women in practice. As regards the latter, " refresher " courses are now recognised as being of great value to medical practitioners who desire to bring themselves up-to-date in the most modern methods of diagnosis and treatment; and it is probable that periodic attendance at courses of this kind will become a compulsory feature of the National Medical Service.

Study Leave.

It may be noted here that the granting of study leave to doctors engaged for long periods in municipal hospitals brings advantages both to the practitioner and to the local authority employing him.

(74) The staff of a hospital consists of a number of persons who require to be trained in a variety of techniques. These include radiographer, laboratory technicians, pharmacists, laundry technicians, lay administrative staff, etc., for whose training and examination there are competent bodies in existence. During the war a number of trainees have been engaged and it is probable that this work of training will be continued and extended in the post-war period.

(75) The opinion has already been expressed in an earlier part of this memorandum that it is important, in the interests of the efficient treatment of patients, that the staffing of the municipal hospitals, especially on the consultant side, should be strengthened. An increase in the number of consultants at the municipal hospitals can be obtained in two ways, namely, (i) by the engagement of additional consultants from among those already available, and (ii) by undertaking the training of new con-

sultants in co-operation with the University and the voluntary hospitals. In practice, no doubt, both methods will be adopted.

Teaching Appointments at Municipal Hospitals.

One important recommendation of the Goodenough Committee is that the professorial heads of the departments of surgery, medicine and obstetrics and gynaecology should be appointed on a full-time salaried basis with little or no right to undertake private practice. This course has already been adopted to a limited extent in London and Glasgow and full-time appointments of this kind will undoubtedly become the rule, rather than the exception as at present, in all the University teaching centres. An arrangement of this kind is not, however, without its difficulties, of which the most important is the problem of providing an adequate number of beds for clinical teaching. While it is possible to provide such beds at voluntary hospitals in the case of professors appointed from their own honorary staffs this is difficult to arrange if the appointment is made (as may sometimes be desirable) from outside Liverpool. One solution to this difficulty is that beds should be available to certain of the clinical professors at municipal hospitals under conditions which would safeguard the interests of the Council and, at the same time, provide a large field of clinical material for teaching purposes. Such an arrangement has already been adopted at Alder Hey Hospital in connection with the new Department of Child Health. A further extension of the principle of appointing to the municipal hospitals University professors and senior clinical teachers, as opportunities occur, would have the effect of strengthening the medical staffs of the committee's larger hospitals and would, in course of time, add to their reputation in the eyes of the profession.

(76) As a corollary to the system of appointing an additional number of senior consultants to the staffs of the municipal hospitals, partly for teaching purposes and partly in order to improve the actual care of patients, there should be considered the advisability of organising the clinical staff into a number of surgical, medical or obstetrical " firms." A " firm " in a voluntary hospital consists of a senior and junior honorary, a registrar, and one or more house surgeons or house physicians who

together, in their several capacities, have charge of 40-50 beds. This system is an efficient method of organisation both for the purposes of teaching and the treatment of patients. The " firm " or " team " system might be adopted in some of the wards of the municipal general hospitals where acute medical and surgical cases are treated, with such modifications as may be necessary owing to the differences in organisation as between the two systems of hospitals. In a municipal hospital the new system could only be adopted gradually as additional senior medical staff was appointed; it would apply in the first place only to the acute wards; and it would involve complete clinical responsibility for patients in wards under the charge of the team. A team in a municipal hospital might, for example, consist of a senior visiting physician or surgeon, a senior resident M.O. who, for teaching purposes, would act as a registrar, and several junior residents (the number depending on the size of the unit under the charge of the team). Such a unit might, for example, consist of 200 or more surgical or medical beds. If the principle of appointing full-time consultants is adopted the heads of some of the teams would be full-time physicians or surgeons; and, in any large hospital, there might in connection with the same subject be one team headed by a part-time consultant and another directed by a full-time consultant, with healthy rivalry between the two.

Hospital Catering.

There have been considerable improvements made in the serving of food in the hospitals, especially by securing that food is delivered warm to the bedside. But there is little doubt that there is room for considerable improvement, during the post-war period, in the cooking of food and in securing fresh fruit and vegetables as these become available in the market. Moreover, it is desirable that some choice of dishes should be generally available to suit tastes both for patients and staff. With this object it may be necessary to make catering departments in the larger hospitals and possibly alter somewhat the methods of purchase of fresh foodstuffs. The catering departments should each be under the control of an officer of some seniority, adequately paid, and directly responsible to the principal officer of the hospital. An addition should be made to the number

of dietitians available as advisors in relation to special diets which are required in a variety of diseases, such as diabetes, peptic ulcer, anaemia, etc.

MATERNITY AND CHILD WELFARE.

(77) A comprehensive report on the Maternity and Child Welfare Services, with recommendations, was prepared by the Medical Officer of Health for the Hospitals Committee in 1935. It was pointed out in that report that these services were shared between the Public Health Department and certain voluntary agencies, mainly the Liverpool Maternity Hospital, the Royal Infirmary and the Liverpool Child Welfare Association.

As a result of the recommendations contained in the 1935 Report four new and specially designed centres were built (Everton Road 1936, Dovecot 1936, Fazakerley 1937 and Queen's Drive 1937), and three further centres in adapted buildings were opened.

(77a) There is, however, still a need for additional maternity and child welfare clinics and these may be in new buildings specially designed for the purpose and administered in conjunction with the School Medical Service, and also in adapted buildings. The specially designed building has definite advantages as it is laid out to provide ideal accommodation for the varied activities of a centre. It has the disadvantage that, centrally situated in a particular district, it may be rather too far away from the homes of some of the mothers who are unwilling to travel very far to attend the centre. Accordingly, a proportion of the clinics must continue to be held in adapted buildings which, if well chosen, are reasonably suitable for the purpose. As a rule it will be found convenient to build clinic premises in connection with new housing estates, as has already been done on the Norris Green, Fazakerley and Dovecot Estates, and also as a part of redevelopment schemes in the centrally situated areas of the city. It is not possible at the present time to make definite suggestions as to the situations of specially designed clinic buildings as this will depend upon the progress of the Corporation's re-housing schemes, but it is recommended, as has been the case in the past, that the Medical

Officer should keep in touch with the City Architect and City Engineer and bring to the notice of the committee, from time to time, the requirements as regards clinic accommodation of any newly developed or newly planned areas.

Staff.

(78) At the beginning of the war there were four full-time assistant medical officers engaged in the work of the Maternity and Child Welfare Department. Changes in the staff have taken place since 1939 and the number of full-time assistant medical officers is now three. The question of medical staff in this department is bound up with considerations advanced in the Government's White Paper on Medical Services which lead to the conclusion that the general practitioner may, in the future, play a larger part in connection with the Maternity and Child Welfare service than he has in the past. As far as Liverpool is concerned the Corporation's clinics have always utilised the services of a number of part-time practitioners. The system whereby maternity and child welfare is administered by a part-time as well as a whole-time medical staff has distinct advantage. Apart from taking their share in the work of the ante-natal and child welfare clinics the full-time medical officers are also engaged on duties concerned with the inspection of nursing homes and day nurseries and with special reports—work which is preferably carried out by a permanent official of the Council. The part-time medical officer, who may be a doctor employed at one of the Corporation's hospitals, or a general practitioner, possesses a variety of clinical experience which is of great value in connection with the work of an ante-natal or child welfare clinic, and if interested in this branch of medical practice he (or she) may give very useful service.

As regards health visitors it is to be observed that the Ministry of Health has not laid down any precise figure as to the number to be employed for any given number of births. In 1935 the City Council decided that the establishment of health visitors should be 75, although this figure has not been reached.

This number would have provided one health visitor for approximately 240 births.

Present opinion is that this proportion of health visitors is too low and it is recommended that there should be one health visitor to every 100 births in the poorer class districts where frequent re-visiting is necessary and one to 200 births in neighbourhoods where mothers are more intelligent and responsive to teaching.

An adequate number of clinic clerks should be appointed to relieve the health visitors of purely clerical work and other non-professional duties such as the distribution of dried milk and vitamin preparations at the centre.

WAR-TIME NURSERIES.

(79) At the request of the Ministry of Health, war-time nurseries were established in Liverpool in 1940. At first, all nurseries were under the administrative control of the Hospitals and Port Health Committee, but it was later decided that those which accommodated children between the ages of 2 and 5 years only should be transferred to the control of the Education Committee. Originally, the nurseries were intended for those children whose mothers were in employment, but recently the Ministry of Health authorised the admission of other children for social reasons—for example, admission of the mother to hospital for short periods for confinement or illness.

It is not unlikely that a certain number of nurseries will need to be retained after the war, to accommodate children whose mothers are, for one reason or another, unable to look after them at home, but no definite programme can be drawn up until the Ministry of Health's policy is made known.

MUNICIPAL MIDWIFERY SERVICE.

(80) The Scheme arranged under the Midwives Act, 1936, which laid upon local authorities the duty to provide domiciliary midwives to cover their area, has not been a pronounced success in many parts of the country.

The difficulties in Liverpool have been accentuated partly by the shortage of experienced midwives and partly by the impossibility of finding

living accommodation in the areas where midwives are required to practise. Municipal midwives have been allowed to occupy their own houses and, when certain nurses have given up work on the municipal staff for one reason or another, they have been unwilling to vacate their houses. Alternative accommodation for midwives to fill the vacancies cannot be found in the areas concerned.

A more practicable arrangement would appear to be either the provision of furnished accommodation* by the local authority (as envisaged by the Rushcliffe Committee) or, where more convenient, the provision of hostels, one of which might be associated with each of the three municipal general hospitals, in which groups of midwives could live, working under the direction of a senior midwife.

Although, as mentioned in paragraph 4 of this Report, the trend is for an increase in hospital confinements, many women would prefer to remain at home if nursing facilities were available.

Home Helps and Maternity Bags.

(81) A service for providing Home Helps and Maternity Bags has been very admirably administered by the Women's Service Bureau for many years, and the Bureau receives financial assistance in respect of these activities from the local authority. It would appear unnecessary to recommend any changes in this service.

Domestic Helps.

(82) A scheme for the provision of domestic helps for assistance in the family during the illness of the mother or in similar circumstances of difficulty has been inaugurated; its success, or otherwise, will depend largely on the possibility of obtaining adequate numbers of suitable applicants in the future. There can be little doubt of the need for this form of help during sickness.

The Care of Illegitimate Children.

(83) In Circular 2866, the Ministry of Health refers to the importance of caring for illegitimate children who present special individual problems,

* Reference to furnished accommodation for midwives :—Notes to Part B of Table II (page 22), Report of the Midwives Salaries Committee, July, 1943.

particularly when the mothers are unable or unwilling to keep them at home. For such children, it is necessary to provide institutional accommodation (often with the mother) until suitable arrangements can be made.

Almost all the voluntary homes for unmarried mothers and illegitimate children are sectarian.

Distribution of Milk and Vitamin Preparations.

(84) Shortly after the outbreak of war, the Ministry of Food decided to take over the distribution of milk to expectant and nursing mothers and young children. It was made quite clear by the Ministry of Health that this provision did not cancel the existing arrangements made by local authorities to issue supplies at clinics or milk depôts, for children who require special types of dried milk which are not supplied by the Ministry of Food. To ensure that expectant mothers and young children have adequate supplies of Vitamins A, D and C, the Ministry of Food (with the co-operation of Medical Officers of Health) have set up vitamin distribution centres in which are included all the child welfare centres. The future policy of the Ministry of Health and Ministry of Food in regard to the provision of milk and vitamin preparations has not yet been declared, but at the present time, there are adequate facilities for distribution of both.

SUMMARY AND RECOMMENDATIONS.

(1) Paragraphs 1-6 contain a brief account of the Corporation's hospitals system as it is at present.

(2) Paragraphs 7-9 give a description of the Council's other Health Services, including Maternity and Child Welfare, Venereal Diseases and Tuberculosis, which are closely linked administratively with the appropriate hospitals.

RECOMMENDED that the policy of providing three Venereal Diseases Clinics to serve the City and Port be continued and that 50 beds be made available for in-patient cases.

(3) Paragraphs 10-14 detail the health and hospitals services provided by voluntary agencies of many kinds which work in association with the Corporation's services.

Re-organisation of Hospitals and Public Health Services.

(4) Paragraphs 15-16 refer to the City, with its municipal and voluntary hospitals associated with the University, as the centre of medical activities extending over a wide area. This area is likely to be wider than the area of the local Planning Board under the Government's White Paper proposals, and will include parts of Lancashire and Cheshire and North Wales.

(5) Paragraphs 17-18 describe the condition of the buildings of some of the municipal hospitals.

It is RECOMMENDED (i) That at Smithdown Road Hospital the present maternity unit and the " Old Corridor " buildings be demolished and replaced by modern buildings of several storeys, and that additional out-patient and nurses' home accommodation should be provided, together with a central stores, (ii) that the Tropical Unit should be continued, and (iii) that the Mill Road Infirmary, largely destroyed in 1941, should not be used again as a general hospital, but that the remaining buildings should be used as temporary maternity accommodation and for purposes of rehabilitation.

(6) Paragraph 19 deals with the continued use of the Broadgreen Hospital as a general hospital during the ten-year period after the war is over, RECOMMENDING such building necessary to make it an efficient hospital, e.g. residential accommodation for nurses, laboratories, etc., should be undertaken and that when a new hospital can be built to replace Mill Road Infirmary, consideration should be given to the question of the retention of Broadgreen as a general hospital in the light of increased needs in 10-20 years time.

(7) Paragraphs 20-23 describe and discuss the present fever hospital accommodation.

RECOMMENDED: (i) That the building of additional cubicle-blocks and the conversion of wards into cubicles should be undertaken at the main Fazakerley Fever Hospitals.

(ii) That the Sparrow Hall Hospital be used for rehabilitation purposes when the need to use it for persons suffering from tuberculosis is over,

(iii) That the use of the Port Hospital for its present purposes (i.e. the accommodation of infectious cases from the Port) should be continued,

(iv) That the Netherfield Road Hospital should only be used for a limited period and then demolished,

(v) That the use of the City Hospital East, somewhat increased in size, should be continued to serve the South End of the City,

(vi) That the use of the Grafton Street Hospital, unless it is required for tropical diseases, or some similar purpose, should be discontinued.

(vii) That the additional accommodation for fever hospital purposes, after Netherfield Road and Grafton Street Hospitals have been discontinued should be 200 beds, of which 150 should be built at Fazakerley and 50 at Mill Lane, together with nurses' home accommodation for 60.

(viii) Some modifications of these proposals may be called for when the Government's scheme for a National Medical Service is fully disclosed.

(8) Paragraphs 24-27 describe the sanatorium accommodation for the City and Table II details the number of beds at each sanatorium and hospital, giving a final total of 1,083 beds. It is stated in paragraph 24 that it is difficult to assess the weight of the factors influencing the number of beds required for the treatment of tuberculosis in the post-war period.

RECOMMENDED: (i) That the Cleaver Sanatorium be continued as a Sanatorium for adult cases and that Seafield House be used for the reception of delicate and tuberculous children.

(ii) That the damaged ward of the West Block at the Fazakerley Sanatorium be re-built as early as possible.

(iii) That extensions of the provision for the rehabilitation and occupation of the ex-sanatorium patients will be needed. Fazakerley is well placed for this purpose.

(iv) That a wing at Cleaver Sanatorium of 50 additional beds be constructed in single cubicles and in units of 6, 8 or 10 beds; together with a small extension of the nurses' home. The " rest room " at present occupied by bed patients should then become available for recreation for which it was originally intended. A third floor should be made in the Administrative Section.

(v) That the Thoracic Centre at Broadgreen Hospital be continued after the war and be available, as at present, for cases from other local authorities' areas on an agreed basis of payment.

(9) Paragraphs 28 and 29 refer to the Council's Tuberculosis Dispensaries and to after-care arrangements, including allowances for tuberculous patients during treatment under the Ministry of Health's Memo. 266/T.

RECOMMENDED :

(i) That three Tuberculosis Dispensaries be available after the war (as at present); and that an additional dispensary be provided to serve the Speke and Garston areas. The latter provision will require the services of an additional tuberculosis officer.

(ii) That the Dispensaries be housed in specially built accommodation; the Central Dispensary providing also office accommodation and facilities for the use of a mass-radiography apparatus, although the latter need not necessarily be in the same premises.

(iii) That further provision may be made for the rehabilitation of the Sanatorium and ex-Sanatorium patient in accordance with the suggestions of the Tomlinson Report.

The General Hospitals.

(10) In paragraph 30 the opinion is expressed that, granted efficient buildings and a much higher standard of medical staffing than at present

exists, the number of general hospital beds now available is nearly sufficient for the present and immediate future needs of the population of the city and the "user agreement" area. This number of beds is 4,700, and the figure includes the total number of beds available to the City and the "user agreement" area in both municipal and voluntary hospitals. On the voluntary side Liverpool possesses an unduly large number of small or special hospitals and there is no general hospital of a size suited to modern requirements. The policy of the Board of the Royal Liverpool United Hospital is to build a new teaching hospital of 1,000 beds to replace the four voluntary general hospitals (para. 31).

(11) In para. 32 it is RECOMMENDED that the future needs of the municipal hospitals' service should be met (i) by the building of a new general hospital of 1,000 beds to replace the Mill Road Infirmary, and (ii) by the complete re-construction of the Walton Hospital on its present site, thus providing 1,500 beds. As an early part of this reconstruction a new Maternity Department and a new Admission and Out-patient Department are immediate needs. (See also recommendation in (6) above, regarding Broadgreen Hospital.)

As part of the rebuilding of the Walton Hospital, it is RECOMMENDED (para. 33) that some of the blocks should be retained for a strictly limited period, as accommodation for aged and infirm people and that the Kirkdale Homes should be closed.

(12) It is noted (para. 34) that the problem of building a 1,000-bedded hospital to replace the Mill Road Infirmary is complicated by the fact that no entirely suitable site, amounting to about 25 acres, is yet available. The Olive Mount site is referred to, and it is RECOMMENDED that the City Engineer and Surveyor be requested to consider this question and make suggestions to the Committee as to alternative sites.

(13) Paragraphs 34-42 discuss the general subjects to be dealt with in the two general hospitals and the principles which should govern their lay-out. It is suggested that they should be built in blocks—each block dealing with a particular subject or group of subjects, e.g. medicine, sur-

gery, obstetrics and gynaecology, orthopaedics; and that there be provided facilities for rehabilitation, psychological medicine and for the treatment of exceptional or uncommon conditions in one or more special centres.

IT IS RECOMMENDED that, in planning the new hospitals, consideration should be given to the need for the provision of in-patient and out-patient accommodation for persons suffering from the minor degrees of mental abnormality and personality defect; and that full-time psychiatrists be appointed to such hospitals.

Children's Hospitals.

(14) RECOMMENDED (i) That Alder Hey Hospital be retained as a children's hospital in the post-war period.

(ii) That the occupation of the Ministry of Health hutments in the grounds of the Alder Hey Hospital, under the agreements of 1940, be continued and that, as an extension of the work of the hospital, long stay cases, e.g. rheumatic heart conditions in children, be admitted (para. 43).

(iii) That a nurses' home be provided in Olive Mount Children's Hospital, by the purchase of an adjacent house.

(15) The question is raised (para. 43) as to the possible use of the site of the Olive Mount Hospital for the building of the suggested new hospital to replace Mill Road Infirmary.

The Institutions.

(16) In paras. 44 and 45 the future of the Belmont Road Hospital and the Kirkdale Homes is considered. As regards the former it is RECOMMENDED that the present use be continued and that, as soon as practicable after the war is over, certain urgent improvements be made including the installation of heating facilities and the erection of a three-storey corridor, to replace the existing single-storey corridors, together with the provision of lifts for patients and food. It is pointed out that with the increasing longevity of the population the number of old people who have to be cared for may double in a generation.

Concerning Kirkdale Homes, the suggestion has already been made that its use be discontinued as soon as alternative accommodation at the Walton Hospital becomes available as a consequence of the reconstruction of that hospital. As a long-term policy it is RECOMMENDED that a different type of institution be considered for old and infirm people, comprising smaller buildings and greater opportunity for privacy.

Short-term Policy in Regard to Municipal Hospitals.

(17) It is noted in para. 46 that, at the outbreak of war, a number of building projects had reached the stage of the preparation of plans or, in some cases, the acceptance of tenders. Such proposals should be considered in the light of war experience and of the Government's proposals for a comprehensive health service, taking into account post-war building difficulties in the way of availability of materials and labour.

Certain schemes are RECOMMENDED as part of the Committee's short-term policy, including the building of two maternity units, nurses' homes, laboratories, out-patient departments, the reconstruction of a sanatorium block and the provision of cubicles at a fever hospital.

Proposals in Regard to the Staffing of Hospitals.

(18) In para. 47 the opinion is expressed that the amount of staff, in the various categories, employed at the municipal hospitals was insufficient to deal adequately with the increasing volume of work, and that this criticism applied to consultants, resident medical officers, technicians, and, to a lesser extent, the nursing staff.

IT IS RECOMMENDED, in general terms, that the staff of the three general hospitals and of Alder Hey be strengthened in all categories as and when this becomes possible.

It is RECOMMENDED also (i) That a grade of full-time consultants and specialists should be created.

(ii) That medical practitioners in this grade should be employed full time and should possess the usual consultants' qualifications, i.e. the F.R.C.S., M.R.C.P., or M.R.C.O.G.; and should, of course, have had extensive clinical experience of their special subjects.

(iii) That their title should be:—Senior Surgeon, Senior Physician or Senior Obstetrician, as the case may be,

(iv) That the salary payable in connection with these appointments should be £1,250, rising to £1,500 per annum, including emoluments,

(v) Additional residential accommodation, in some cases suitable for married officers, will be required at an early date.

(19) In regard to pathological services it is considered (para. 50) that, because of the importance of this subject in modern medicine, much attention should be devoted to securing a high standard of work.

RECOMMENDED: (i) That a full-time senior pathologist should be appointed at each of the three general hospitals and at Alder Hey and at Fazakerley.

(ii) That, in the case of the three general hospitals, a junior pathologist should be appointed in addition.

(iii) That the salary of the senior pathologist should be on the same scale as that of a full-time consultant, namely, £1,250-£1,500 per annum, including emoluments.

(20) Paras. 51-53 make reference to the position of medical superintendents at a municipal hospital. It is RECOMMENDED that medical boards, for advisory, but not administrative purposes, should be constituted at the three general hospitals and at Alder Hey Hospital, consisting of senior full-time and part-time medical staff, with the right of access to the Hospital Committee.

Rehabilitation.

(21) The proposed scheme for providing facilities for rehabilitation is discussed under the following headings:—

(a) Facilities to be provided in hospitals as part of in-patient treatment.

(b) Facilities in convalescent homes or hospitals.

(c) Provision of out-patient facilities, either in hospitals or in special centres.

(d) Vocational training (para. 54).

It is RECOMMENDED (i) That an experimental unit for rehabilitation be organised at the Broadgreen Hospital in order that the Department may gain experience of the working of such a centre and secure staff which gradually become expert in the procedures necessary to solve the many detailed problems presented by individual patients. Some part of this unit is now in operation.

(ii) That consideration be given to the use of some of the remaining buildings at the Mill Road Infirmary for the purposes of an out-patient rehabilitation centre. (Para. 57.)

Nursing Services.

(22) Paragraphs 60-66 describe the facilities available in municipal hospitals for the training of nurses, referring also to the Rushcliffe Report and the Nurses' Act, 1943; and the view is expressed that owing to the increasing tendency to emphasise the auxiliary status of student nurses and the increasing complexity of nursing procedures it will be necessary in the future to employ a larger proportion of trained nurses. In the post-war period courses of training will be available for assistant nurses, both male and female, and it will become necessary to obtain authority to set up a modified training school for this category of nurse at the Belmont Road Hospital, and possibly at the Kirkdale Homes.

It is mentioned that the requirements for fully training sister tutors has probably been adequately met by the Committee's provision of two annual bursaries for suitable applicants from the municipal nursing staffs.

It is RECOMMENDED that a Pre-hospital Training School for nurses be extablished either separately or in conjunction with the voluntary hospitals and that Preliminary Training Schools be established before 1947 for all hospitals.

Child Health.

(23) In paragraph 67 there is a brief account of the measures taken to reduce child mortality and morbidity and the formation of a Department of Child Health and the opening of units for the care of premature babies at the Walton and Smithdown Road Hospitals is referred to.

Municipal Hospitals and Undergraduate and Post-graduate Teaching.

(24) Paragraph 68 summarises the main proposals contained in the Report of the Inter-departmental Committee on Medical Schools (Goodenough Report) and in para. 69 are contained two recommendations by that committee which affect local authority hospitals, namely (i) that there should be a joint advisory committee for the appointment to teaching hospitals of all medical staff above the grade corresponding to that of registrar and (ii) that every medical student, after he has passed his final examination and before his admission to the Register, should serve as a junior house-officer for a period of twelve months in one or more approved hospitals.

(25) Mention is made in paras. 70 and 73 of the part which local authority hospitals in and near University centres will be expected to take in the training of undergraduate and post-graduate students, in the reception of " interns " and in the education of consultants.

Some of the refresher courses for practitioners, a probable requirement in connection with the National Medical Service, will be conducted at local authority hospitals.

(26) One important recommendation of the Goodenough Committee is that the professorial heads of the departments of surgery, medicine and obstetrics and gynaecology should be appointed on a full-time salaried basis. It is suggested (para. 73) that sometimes beds at municipal hospitals should be made available under appropriate conditions to certain full-time clinical professors should the University so desire. A similar arrangement is now in force at the Alder Hey Hospital in connection with the new Department of Child Health.

(27) Paragraph 74 discusses the desirability of a further organisation of the medical staffs of municipal hospitals into " teams," fully responsible for the care of patients in a number of wards.

Paragraph 74a refers to the desirability of setting up catering departments in some hospitals. The need to provide for the training of a variety of technicians is discussed in para. 74.

Maternity and Child Welfare.

(28) Paragraph 77a deals with the need for additional maternity and child welfare clinics, either in new and specially-designed buildings or in adapted buildings according to the needs of the district. It is RECOMMENDED that the policy of considering clinic requirements in newly-developed of newly-planned housing areas shall be continued. Mention is made (para. 77) of the medical staffing of clinics, including the part played by part-time practitioners and the duties of the whole-time medical staff of the department. There should be an increase in the number of health visitors and also in clerical staff to relieve the former of some of their routine duties at clinics. Para. 79 deals with the work of war-time nurseries, some of which may be retained after the war.

(29) In referring to the municipal midwifery service (para. 80) the trend is noted of a preference of women for confinement in hospital, probably accentuated by difficulties with regard to housing accommodation. Post-war requirements for this service, account should be taken of the lack of housing accommodation for municipal midwives in their areas of practice and it is suggested that the local authority should provide for them furnished accommodation or hostels.

(30) Paras. 81-83 deal briefly with the work of a voluntary organisation in providing home helps and maternity bags, the care to be taken of illegitimate children and the distribution by the Ministry of Food in co-operation with the maternity and child welfare department of milk and vitamin preparations to expectant mothers and nursing mothers and young children.

CONCLUSION.

In writing this report the Medical Officer of Health has had the advantage of the assistance of many of the senior officers of the Department, including Dr. C. O. Stallybrass and the Medical Superintendents of the Corporation's Hospitals; and he is indebted to them for the advice they have given in the preparation of this document which deals with the future of a large, important and highly complicated service.

The report, as its title implies, deals mainly with matters of principle and only to a small extent is it concerned with the detailed translation of its recommendations into administrative action. It should be regarded as a long-term report and some of the suggestions which are made in it for the Committee's consideration, such as, for example, the building of hospitals, will require a period of years before they can be completely carried out. Moreover, the report has been compiled in the absence of information in regard to the future form of the organisation of the country's medical services, and thus it has not been possible to make any attempt at fitting specific proposals into a national framework. It is believed, however, that there are no suggestions in the report which are likely to run counter to any conceivable re-organisation of the national health and medical services.

Very few of the recommendations contained in this report can be implemented during the present year or even next year on account of building priorities and the absence of many doctors, nurses and technicians in the forces. The situation in regard to medical staffs in particular is certain to remain difficult for two or three years, and the Medical Officer considers that no action should be taken in regard to any permanent full-time appointments of consultants until the demobilisation of doctors from the forces enables the Committee to select candidates for such appointments from a very wide field. It seems certain, however, that of the major items in the re-organisation of the City's health and medical services, viz., buildings and staff, the staffing problem will be the first to be solved. A small amount of building may be possible during the first five years, and suggestions in regard to hos-

pital improvements, involving some building, have been made in para. 46. These additions will add much to the efficiency of the services.

One of the complications arising in any consideration of the medical services of a large city is the fact that these services are supplied by many different organisations and controlled in many different ways. The Medical Officer has, therefore, considered it desirable to refer in the report to voluntary hospitals and organisations controlled by voluntary societies, as well as to the services directly responsible to the Council, so that a complete picture might be presented to the Committee. Such voluntary health and medical services will undoubtedly continue, as an integral part of the forthcoming National Medical Service and a still closer association will exist between them and the municipally-controlled hospitals and clinics. It would in any case be impossible to present to the Committee a complete picture of the whole system if these services had not been described.

Designedly, nothing has been said in the main body of the report on the subject of finance. Undoubtedly hospital building and hospital maintenance will be more costly in the future than in the past. Improved staffing and increased salary scales will add largely to expenditure. During the war large grants have been available from the Ministry of Health in connection with the maintenance and treatment of service cases and air-raid casualties in the Liverpool municipal hospitals. Income from this source will rapidly decline now that the war is over and there will be a gap between the present system and that of the National Medical Service which, it is supposed, may come into operation on 1st April, 1947. Under the National Medical Service grants will be available from the Exchequer in respect of the maintenance of local authority and voluntary hospitals. At the present time there are no general Exchequer grants payable in connection with the upkeep of hospitals and payment by the Emergency Medical Service for beds used for military sick and wounded only applies to relatively few hospitals throughout the country. It seems likely that some assistance may be given to local authorities from the Exchequer to bridge the relatively short-period gaps between the cessation of the activities of the Emer-

gency Medical Service and the coming into force of the National Medical Service; but no specific proposals have yet been made for this purpose.

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Hospitals and Port Health Committee,
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